EXPERIMENTAL
TELEPATHY

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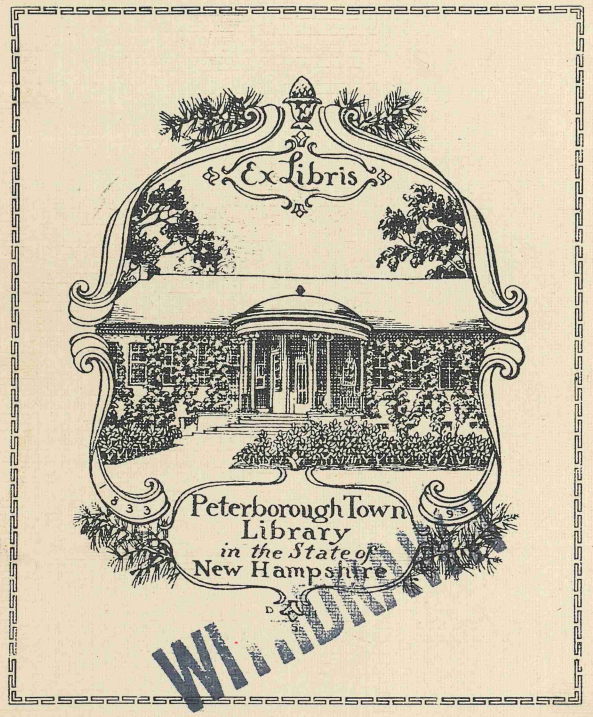

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EXPERIMENTAL TELEPATHY

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By

RENÉ WARCOLLIER

Edited and abridged by GARDNER MURPHY
from *La Télépathie,* articles in the
Revue Métapsychique, and recent
unpublished studies

Translated by

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TABLE OF CONTENTS

FOREWORD BY GARDNER MURPHY . . . . . vii-viii

CHAPTER I. INVESTIGATION OF TELEPATHY [1921] . . . 1

CHAPTER II. GROUP EXPERIMENTS IN TELEPATHY [1925] . 17

CHAPTER III. WHAT IS TRANSMITTED? [1926] 33

CHAPTER IV. ENLARGEMENT OF OUR GROUP FOR LONG DISTANCE WORK [1927] 56

CHAPTER V. TELEPATHIC ACCORD [1928] 74

CHAPTER VI. ACTIVE AND PASSIVE TELEPATHY [1924] . . 93

CHAPTER VII. TELEPATHY AND IMAGINATION [1930] . . . 101

CHAPTER VIII. TELEPATHIC DRAWING [1931] 120

CHAPTER IX. THE PROBLEMS OF RECEPTION [1921] . . . 132

CHAPTER X. ANALYSIS OF TELEPATHIC MESSAGES [1921] . 142

CHAPTER XI. THE RELATION OF TELEPATHY TO THE SUBCONSCIOUS AND THE UNCONSCIOUS [1929] . 158

CHAPTER XII. THE NATURE OF TELEPATHY [1921] . . . 186

CHAPTER XIII. THE DIFFICULTIES OF TELEPATHIC TRANSMISSION [1921] 204

CHAPTER XIV. DEVELOPMENT OF THE TELEPATHIC FACULTY [1936] 214

CHAPTER XV. TELEPATHY OR THOUGHT READING? [1936] . 247

CHAPTER XVI. CONCLUSION [1921] 281

GLOSSARY 295

FOREWORD

Throughout its existence, the Boston Society for Psychic Research has prided itself on its opportunity to publish not only the investigations carried out in the Boston area, but the work of investigators everywhere.

The experimental work of René Warcollier, a French chemical engineer, became known upon the publication of his *La télépathie* in 1921. This volume was the mature report and interpretation of telepathic experiments carried out by him over a fifteen-year period. In 1922 and 1923 he made plans for international collaboration in psychical research, setting up "telepathic posts" in many European countries, and one in New York City. It was my privilege to participate in the weekly long-distance experiments directed by Warcollier, which he finally reported before the Third International Congress of Psychical Research in Paris in 1927.

From time to time since the 1921 publication, Warcollier has reported on his current researches through the pages of the *Revue Métapsychique*. Many of these brief papers contain outstandingly important experimental work, regarded by many as more valuable than the material in the original book. For this reason, much of this material from the *Revue* has been translated here; in fact, wherever the same problems are discussed in the 1921 volume and in more recent papers, the latter have been chosen to appear here.

Warcollier was made a member of the Boston Society's Research Committee in 1935. The work done since that date has by common agreement been considered the property of the Society. This work now appears for the first time, being the only part of the present material which has not previously appeared in print at all. This new material makes up the last two chapters of the present volume.

A decision had to be made whether these many diverse materials prepared at different times and for different audiences should be rewritten as a single unified volume, or presented as "collected papers." The urgency of prompt publication has led to the adoption of the latter procedure. The reader is urged to note the independence of each contribution and to be indulgent regarding the inevitable lack of integration resulting from the situation just described. It is possible that at a future date the material can be presented in a simpler and more easily readable form. This would, however, require far more time than the author can now give, and it is felt that the stimulus which this volume will give to research workers is sufficient justification for its immediate publication. The Table of Contents shows the date of each contribution. Views expressed at different times are sometimes at variance, but since many of them, especially those relating to physical analogies are frankly very speculative, it has seemed best not to attempt to work them into a "final" form.

A gift from Commander E. F. McDonald of the Zenith Radio Corporation and small sums given by private donors make possible the appearance of the volume in this form. It should be expressly stated that the only point of contact between this volume and the Zenith Corporation is the personal interest of Commander McDonald in the present book. The appearance of the volume does not mean that the author, the translator, the editor, or the Boston Society have any connection with the Zenith Corporation, or its telepathy program, nor that the Zenith Corporation assumes any responsibility for, or wishes to underwrite any of the opinions expressed in, the present work. The personal gratitude of the editor and the members of the Society to Commander McDonald is sincere and profound.

GARDNER MURPHY.

CHAPTER I

Investigation of Telepathy

STORIES of ghosts and haunted houses, tales of omens and strange presentiments, have interested mankind since the dawn of recorded history. They have been handed down from generation to generation. With the Age of Reason such tales fell into disrepute, and to tell or listen to them, above all to lend credence to them, was to show oneself bound by a monstrous superstition. But with the application of scientific method to all fields of knowledge, and, in particular, with the emergence of psychology and sociology, a new attitude — a "research attitude" — has arisen. No longer are stories of ghosts and omens left contemptuously for peasants to tell around the fire on long winter nights; they have been brought into the laboratory for study, and now may be found by thousands in serious books and magazines, and in scholars' monographs.

On July 17, 1882, at the first general meeting of the Society for Psychical Research in London (founded for the purpose of examining these phenomena), its president, Henry Sidgwick, said in a remarkable address: "The present state of things is a scandal to the enlightened age in which we live. Now the primary aim of our Society, the thing which we all unite to promote whether as believers or non-believers, is to

make a sustained and systematic attempt to remove this scandal in one way or another." Twenty years after the founding of the Society, its secretary, Mr. Bennett, in summing up its work, could write: "It has been proved that the human intelligence can acquire knowledge otherwise than by means of the five senses. In other words, telepathy is a proved fact."

The evidence which led to the acceptance of telepathy by the English scholars was obtained in various ways, but primarily by a minute inquiry into cases submitted by the English public which had been invited to report any facts about apparitions appearing at the moment of death or after death. The following question was put to them in 1882 by means of the press:

"Since January 1, 1874, have you, when in good health, free from anxiety, and completely awake, had a vivid impression of seeing or being touched by a human being, or of hearing a voice or sound which suggested a human presence, when no one was there?"

The Society received 5,705 responses (mostly from the cultured classes), which sufficed for statistical study. The voluminous report of this investigation by Gurney, Myers, and Podmore, entitled *Phantasms of the Living,* appeared in an abridged French edition. The volume contained 668 cases of spontaneous telepathy, among which were 399 cases where the agent had been on the point of death or had just died.

In 1889 Camille Flammarion launched a similar appeal to the subscribers of *Les Annales politiques et littéraires,* who numbered 80,000. Asking for a *yes* or *no* response as to whether they had experienced telepathic phenomena, he received 4,280 replies, of which 2,456 were *no,* and 1,824 were *yes.* Among the latter there were 1,758 more or less detailed letters, of which 786 seemed important enough to publish in *L'Inconnu et les problèmes psychiques.*

It is important to note that Flammarion, as well as the English writers, insists upon the calculation of probabilities, in order properly to evaluate the results obtained. He cites, for example, a case in which an apparition coincided, within twelve minutes, with the time of occurrence of a distant, unexpected death. Consulting the figures of the official mortality table, he computed that the probability of telepathic incident as against fortuitous coincidence was, in this case, 804,622,222 to 1.

Since *Phantasms of the Living* and the work of Flammarion, there have been no extensive inquiries in the form of appeals to the public,[1] but new cases have appeared in the psychic journals.

Vaschide, another investigator, has challenged the findings of both the English and the French investigators. He has objected to their calculation of probabilities, their use of the questionnaire, and their over-confidence in unknown correspondents who might be unscrupulous. Contrary to those of the authors cited, Vaschide's investigations were conducted with a very limited number of subjects, chosen from his relatives. "The great majority of these persons were far removed from the [current] psychological movement. In all, thirty-four persons, of whom twenty-one were of Roumanian extraction, furnished 1,374 cases, including forty-eight coincidences."

But, for Vaschide, reported "telepathic hallucinations" are frequent. "A vague discomfort, a retinal light or phosphene, a ringing in the ear, any of these may lead to a report of

[1] During the war, Richet tried a new appeal, in the *Bulletin des armées,* to the soldiers at the front. This gave him some interesting results. Fairly recently (1921) Flammarion renewed his investigation in his work, *La Mort et son mystère.* — AUTHOR.

Walter Franklin Prince in 1928-29 sent a Questionnaire to 10,000 persons listed in *Who's Who in America;* 430 affirmative replies of apparently supernormal experiences were received. See *Human Experiences,* Boston Society for Psychic Research, 1931. — ED.

'hallucination'." The English authors, on the contrary, find hallucinations a rarity. In the majority of their cases the subjects claimed to have had only one hallucination that they considered genuine.

It is probably because of this difference in point of departure that contrasting results are reached, and the method employed by Vaschide is not more exempt from criticism than that employed by the English investigators. The latter scientifically analyzed the cases that the inexperienced public brought to them; but Vaschide, on the lookout for telepathic hallucinations, of which he required a large number for statistical purposes, was ready, in spite of his paucity of subjects, to include vague impressions of little value, even going so far as to consider simple association of ideas. That is why his cases were not extraordinary events in the lives of his subjects, as were those reported by the British investigators.

Although Gurney, Myers, and Podmore, and also Flammarion, gave accounts of many cases in which the subject was not in a waking state, Vaschide does not make one allusion to such a case. This leads us to conclude that he concerned himself most often with fleeting impressions, visions due to imagination, and not true hallucinations.

Now, after this necessary criticism, I shall cite a typical English case from *Phantasms of the Living*, p. 258, which indicates clearly that the difference between "true telepathic hallucinations" and the presentiments of Vaschide does not come from a mere difference in treatment.

The following account is from Mrs. Paris (née Griffiths), of 33 High Street, Lowestoft.

April 30th, 1884

We were a family of eight. Twenty years ago we were all at home but one, H. This was by no arrangement, but by what

seemed a series of coincidences. H. was to join us on Wednesday, August 3rd, to leave his situation, and spend a few days at home before entering on his new one. On the Sunday previous to his coming we had been to church – I for the first time after a protracted illness. My sister was too much occupied with her infant niece, and had not been with us. We met my sister's friend, Miss J., a Russian lady, highly accomplished, and very intelligent. She walked home with us, and we insisted on her staying to our early dinner. My sister was delighted to have her to recount the precocious charms of our infantile treasure. It was a very pleasant morning.

I have given these details rather minutely to show that there was nothing in the surrounding circumstances to cause depression. My sister was in good health, even better than usual. Well, we had gone through the first course, the second was being placed on the table, when Miss J. asked, "Where is Marianne?" – my sister. My mother remarked that she had left the room some minutes since, and did not seem well. I immediately went out, and after looking all through the house and not finding her, went into the garden. There I found her sitting with her head resting on her hands, looking into what was called the "quarry" – an unused working, then and for years before flooded. From where she sat she could see the water looking so still and black. She was quite unaware of my presence. I put my hands on her shoulders, and asked, "What is the matter?" She evidently neither felt nor heard me. I then went to her side and shall never forget the expression of her face. She looked perfectly paralyzed with fear and horror. Her eyes seemed riveted to that water, as if she was witnessing an awful scene, and could give no help. "*What* is the matter, my dear?" She was still insensible to my presence and touch. In a few seconds she gave such a cry of suppressed agony and said, "Oh, he's gone." She then seemed to become aware of my presence and turned a look of agonized entreaty on me, and yet there was a little relief. Presently she said, "Oh, J., do go away and leave me." I begged her to come in, and then as if she could bear it no longer she said, "Oh, J., he's gone. Oh, God, he's gone, my poor dear H." I begged her not to restrain herself so terribly, but to tell me what was wrong.

Very slowly, as if it cost her unspeakable suffering she said, "There is something terrible taking place." I lightly answered, "Of course, that is true all the year round. When is the moment but that some soul is meeting its Author?" She shivered, and after a good deal of persuasion she returned with me into the room – she evidently not wishing to excite or trouble me. I thought no more of it. Miss J. had gone with her to her room and had insisted on her lying down, and induced her to relieve herself by telling her, Miss J., all about it. *She* was so much impressed with what she had heard that she left my sister, promising to return after afternoon service.

At about 3 o'clock that afternoon, we received the news of the death of our dear H. by drowning. He was on his way to church with the other members of the choir. Tempted by the delightful weather and the inviting look of the water, several of them proposed a "dip," "just one for the last time, H." He complied, was first in, and had only gone into water up to his knees, when he called out that he was drowning. His companions were panic-stricken, and declared afterwards that they could not move. One at last recovered presence of mind sufficient to shout, and then to run the short distance to the church, and called out, "G., H. is drowning, come, quick." G. rushed out, undressing as he went, and throwing his clothes along the road, jumped in, and would undoubtedly have saved him, but H. clutched hold of him, and they both sank to rise no more, just a few minutes before 2 o'clock, and at the moment my sister called out, "He's gone."

We found her in a deep sleep, looking years older, but quite prepared for the news, for when my brother roused her, she said, "Have they come? They have not brought him home yet, have they?" Miss J. came, seemingly quite prepared to hear of our sorrow. She told me afterwards that my sister had described the scene and the place, although she had certainly never been there. There was no precedent for his bathing on Sunday, nothing to suggest to her mind the possibility of his doing so.

Had I been the recipient of this "warning," "presentiment," "revelation," or whatever it may be called, weakness and consequent nervousness might have been urged as a predisposing

cause, but it could not be urged in my sister's case. She was twenty-seven at the time, and we have always been pronounced "sensible women with no nonsense about them."

This is like the emotional cases cited by Vaschide. But the English writers report a few cases entirely without emotional value. These are of particular importance, in my opinion, as they are free of any spiritualistic interpretation.

I had the opportunity of observing one of these unemotional cases myself, and I have chosen it as a basis for this study. The following is an exact copy of the notes written by me on June 2, 1913, and witnessed by Mme. Warcollier and her sister, Mlle. Loinard:

On the evening of May 31, having dined in Paris at the home of my wife's cousin, L., I took the train for A. and arrived at P.'s house at about 11:30 that evening. I was tired by my journey, and soon went to bed in a room that I had occupied several times before when I had visited there. My wife was waiting there for me.

As soon as I was warmly sheltered from the cold dampness of the outdoors, I remembered that my wife had told me that this room had always been occupied by her parents, now deceased, when they had come for little visits with P. Then, having looked with curiosity at the furniture, and discussed it with my wife, a rare occurrence for me, I closed my eyes and soon dozed off. However, before going to sleep, I thought of psychic matters. It is possible that the reading of *Les Annales,* which I had received that morning, had contributed unconsciously to a prolonging of my meditations on the subject.

However, probably after a short sleep from which I was aroused when my wife went to bed, I had a clear vision of the room, as if it were lighted by a night lamp. At the foot of an armchair I clearly saw an oblong package wrapped in yellow wrapping paper and tied with package-cord. The ends of the cord looped so that they were double or threefold at the top, and fell back freely, like a handle. I exclaimed at once, "What is the package there?" My wife replied, "What package?" I de-

scribed it to her, but at the same moment I perceived that it did not exist.

My wife was very much interested, and explained to me that a package had in fact been put down near the chair during the evening, and that it corresponded perfectly to that of my vision in shape size, color of paper, and looped handle, which was double. It had been brought up to the room by mistake.

The history of the package is interesting. In the afternoon P. had seen L., who had given him the package which contained an enormous bunch of asparagus. P. was to meet my wife in Paris when her train left, but she missed the train and took the following one. P., who had ordered a cab at A. for my wife, left the package in the cab at the station. When my wife arrived at P.'s house the package was carried up with her luggage and put in the place in the room where I thought I had seen it. But several hours later the mistake was discovered, and the package was taken downstairs again and placed in the kitchen. My wife told me later that she had been curious about the package. She did not know that it contained asparagus. Some may say that, while dining that evening with L., I learned of his meeting with P., and that I knew also that I was eating asparagus raised by L. It is quite probable, although I have no recollection whatsoever that he told me of having given P. asparagus to take home. It seems no less certain that he had not given me a description of the package. In any case, what he could *not* have told me was that the package would be carried, by mistake, up to our room with my wife's baggage and placed beside an armchair.

The knowledge of the place occupied by the package is much more important than knowledge of its shape, color, and other physical properties. The perception could not have been due to a forgotten memory-image, and it is important to note that the idea of a bunch of asparagus would never have caused me to think of an oblong box. The bunch had been placed in a cardboard box precisely so that it would *not* suggest the idea of a package of food, to people meeting P. I believe that the occurrence must be considered definitely paranormal.

Could it have been telepathy from my wife, whose curiosity

was aroused by the package? Or was it a phenomenon of "haunting" by an object provocative of a vision, of the kind called *bienvenue* (welcome)? This type of vision is supposedly produced upon the arrival of a traveler at a "haunted" room, never before or seldom occupied by him. The latter theory is less probable than the former, and is almost incomprehensible.

(Signed) R. WARCOLLIER.

Statements from Mme. Warcollier and her sister follow:

I certify that the above account conforms to reality, and that my husband saw, when going to sleep, a package identical to one that had been placed there and had been removed four hours previous to his perception. He saw it in the exact spot that it had occupied in the room. He believed so fully in the reality of his vision that he said to me, while reaching out his hand to try to take it, "Look! but it's not there!" My husband even leaned over in order to see better, and appeared very much surprised to find nothing. It was then, because I was very much impressed, and felt sure he had experienced a clairvoyant phenomenon, that I told my husband the story of the package.

(Signed) G. WARCOLLIER, June 2, 1913.

I certify that I saw the package occupying exactly the place in which M. Warcollier had the vision of it. He told me about it the next day in the exact terms of his statement above.

(Signed) S. LOINARD.

I have nothing of importance to add to these notes now. I am still surprised at the clarity of this hallucinatory phenomenon, although I should add that this was not the only one in my life. But the others are concerned with the study of after-images and memory-images. I must, however, say that so far I have never seen phantoms of any friends or relatives, living, dying, or dead; that is, I have experienced no telepathic phenomena of great emotional value.

On the other hand, this case, involving as it does the apparition of an object, shows how wrong we are to deny cases of "haunting," which could perfectly well be due to similar

causes. This example of the "haunting" of a room by a package shows that the telepathic action of one person living in the house, or perhaps in a neighboring house, could be quite enough to create an apparition.

We must note that, in all the cases thus far cited, the transmission from the agent[2] was made altogether unconsciously. That is the general rule; but there are other types of transmission, and even of voluntary experimental apparitions, that we shall consider later; this chapter deals only with spontaneous cases.

I. Natural Conditions for Spontaneous Transmission and Reception

Having carefully reread all the telepathic cases published by the French and English authors cited, I have drawn up Tables I, II, and III from their statistics, noting the age and sex of the agents and of the percipients, and the state of consciousness at the moment of the phenomenon, whether awake, asleep, in coma, etc.

A glance at Table I suggests that men are better agents than women, and that women are better percipients than men, according to both the English writers and Flammarion. The statistics on Richet's investigations are irrelevant here because his inquiry was addressed particularly to men. Children and young people appear to be better agents than older people, and, above all, they seem to be much better percipients. Boys and young men seem to have the faculty to the same degree as young women and girls. If we compare these results with those of Vaschide, we note that he also recognizes

[2] The agent is the source of a telepathic message. I believe that my wife was, in this case, the agent from whom I received the message.

Table I

Relation of Age and Sex to the Rôle of Agent[a] and Percipient[a]
(The percentages in the right half of Table I are computed from totals, but many cases do not clearly indicate age.)

	Gurney Myers Podmore	Flammarion	Richet		Gurney Myers Podmore	Flammarion	Richet
	AGENTS						
	129 cases	209 cases	40 cases		129 cases	209 cases	40 cases
Men	67%	57%	70%	Young men or male children	10.0%	4.3%	0.0%
				Aged men	1.6%	1.5%	?
Women	33%	43%	30%	Young women or female children	7.8%	2.4%	2.5%
				Aged women	0.8%	7.0%	0.0%
	PERCIPIENTS						
	161 cases	226 cases	37 cases		161 cases	226 cases	37 cases
Men	44%	47%	70%	Young men or male children	3.0%	10.0%	10.8%
				Aged men	0.6%	0.0%	0.0%
Women	56%	53%	30%	Young women or female children	11.0%	10.0%	8.1%
				Aged women	0.6%	2.0%	0.0%

[a] Agent and percipient are sender and receiver, respectively.

the superior aptitude of women as percipients. This might easily be explained by the hypothesis that women allow the imagination to wander more freely than do men. Cases among old men are extremely rare. Whatever it may be, this faculty of telepathy seems to obey exactly the habitual laws of thought. We know, for example, that the rapidity of the association of ideas increases up to full maturity, and that it then decreases.

TABLE II

INFLUENCE OF SEX

Agent	Percipient	Gurney Myers Podmore 150 English cases	Flammarion 233 French cases	Richet 40 cases
Male	Female	41%	31%	22.5%
Male	Male	29%	27%	52.5%
Female	Male	18%	18%	17.5%
Female	Female	12%	24%	7.5%

Table II suggests that men are much better agents for women percipients than women are for men, and also that men are better agents for men percipients than women are for women percipients.

If we admit, simply as a hypothesis for study, that telepathy is due to the influence of a force emanating from the brain of the agent, possibly related to muscular tone, etc., we may easily understand why young or middle-aged men emit a greater force than do women, children, or old people. The rarity of the rôle of agent among the old would seem to dispose of the idea of a purely spiritual transmission. And once the hypothesis of telepathy is admitted as possible, we may attempt to determine what state of consciousness is most favorable for agent and percipient.

The English writers and Flammarion have classified the cases of telepathy produced in the percipient's waking and sleeping states, but they have not classified the various states of the agent, except to insist that, in the majority of cases, the agent was on the point of death or was in coma. The English investigators find also that in nine per cent of 395 cases the agent was drowned, whereas statistical tables give only five per cent of accidental deaths as being due to drowning. And

in six other cases it is probable that the agents perished in the same manner. Sudden accidental death, then, appears to be favorable to telepathic transmission.

TABLE III

INFLUENCE OF STATES OF CONSCIOUSNESS

Agent	Percipient	Gurney Myers Podmore	Flammarion	Richet [a]
Awake	Awake	7	0	
Awake	Asleep [b]	15	0	
Asleep	Awake	19	40	
Asleep	Asleep	59 [c]	60 [d]	

[a] In Richet's inquiry these statistics are lacking. In forty cases we find the following percentages:

Agent { Asleep or dead, 51% / Awake (emotional state), 49% }

Percipient { Sleep 74% / Half-sleep 8% / Awake 18% }

[b] I class under "asleep": Fainting, coma, delirium, and the moment of death.

[c] Percipient: Slightly more frequent before than after sleep, above all during waking intervals at night, except during the first two hours of sleep.

[d] Percipient: Eighteen during half-sleep, twenty during waking intervals between periods of sleep, twenty-two during dreams.

We can see from Table III that the best conditions are the states of sleep, or similar states, for the agent as well as for the percipient. The worst conditions, for both agent and percipient, are the waking states. We notice, upon comparing the English and French statistics in the three tables, that telepathic phenomena seem to obey certain laws. That is to say, they cannot be explained on a basis of pure fortuitous coincidence. The inadequacy of the investigation in some of the cases published by Flammarion need not cause them to be put aside in their entirety.

II. Classification of Different Cases

We may express schematically the various cases grouped in Table III. Let us call A the waking state of the agent, P that of the percipient. Let A′ be the half-asleep, sleeping, or comatose state of the agent, P′ that of the percipient. We may say that transmission A⟿P, i.e., from A to P, is rare, but that A′⟿P′ is frequent. We use the form A⟿P′ when the agent is awake and the percipient asleep, and A′⟿P when the rôles are reversed.

I shall now present some spontaneous cases in each category, extracted from the records of the writers cited.

The Agent and the Percipient Both Awake.[3]

Dr. Nicholas, a major in the Medical Corps of the Greek Army, went to a new post on the Isle of Zante. As he approached the island he heard an inner voice say to him, "Go to see Volterra." This astonished him. Dr. Nicholas adds, "Nothing made me think of Mr. Volterra, who lived at Zante, and whom I scarcely even knew, although I had met him once ten years before." Upon arriving at the hotel he found Volterra, who tearfully asked to consult him about his son, who was very sick, and whom the doctor cured.

In Richet's inquiry I find two analogous cases. He tells of a soldier on a transport at Port Said who, in the waking state, suffered a nervous attack at the moment that his brother was in danger of death at Verdun. In another case, Daniel Bertrand was unwittingly led to a telephone booth, where he received word that his mother was dying.

In all these cases, the telepathic communication was extremely defective. They illustrate what happens generally in waking life when telepathic messages, confused by the activity

[3] The above is taken from *Phantasms of the Living*, p. 285.

of our intellectual faculties, cannot express themselves except as intuitions, or, more likely, are lost entirely.

The Agent in a State Akin to Sleep, the Percipient Awake

The following is the case of Mrs. Bettany, Dulwich, England.[4] Once, when a child, she had been reading her geometry while dressing. The external objects before her suddenly disappeared and were replaced by a vision of her mother lying on the floor in a particular room where she was unaccustomed to go. The child went immediately for their doctor and brought him back in time to save her mother, who actually had been stricken in the room in which the child saw her in her vision.

Thus we see that telepathic messages seem to attain greater clarity for the percipient, even when awake, if the agent is not in this state. But I believe that the waking state of the percipient does not continue throughout the vision, as was shown in the case of Mrs. Paris, who, apparently in a trance, saw her brother drown. This is also indicated by another case,[5] that of M. N. King, of Farnborough, Hants, who, while walking, had a vision of a person who was at that moment dying. The vision was ended by a fainting spell, followed by a state of stupor.

The Agent Awake, the Percipient Asleep (or in a Sleep-like State)

My own case of the vision of the package comes under this classification. Through this type of case, we are led to believe that sensitivity to feeble messages is greater when the percipient is asleep than when he is awake.

[4] *Ibid.*, p. 73.
[5] *Ibid.*, p. 247.

The Agent and Percipient Asleep

The agent in this case, a lady, dreamed of going to a town in which she found one of her old friends. She saw the friend about to go to bed, and said, "Bessie, let us be friends." At the same time, Bessie, the percipient, saw the agent and heard her words, also in a dream.

Cases such as this belong in the category of collective dreams, but they suggest that the state of sleep in agent and percipient is very favorable for transmission.

The diagrams which we have used to group the different cases suggest an analogy with telephone communication. When talking over the telephone the agent and percipient are obliged to isolate themselves to prevent having defective communication, or none at all. The agent must be close to the telephone, and the percipient must listen attentively. The communication A⟿P is like that in which the two persons telephoning are too far from the apparatus. A′⟿P corresponds to the situation in which the agent speaks loudly, or is near enough for the percipient to hear him at a little distance from the telephone receiver. A⟿P′ is the situation in which the percipient can overhear at the receiver any conversation that the agent is having near his telephone after he has taken the receiver from the hook.

There is yet one more type, analogous to good telephonic transmission. The arrows A⟿A′, or P⟿P′ represents the *voluntary element,* lacking in spontaneous telepathy, yet capable of being achieved to some degree by experimental means, as we shall see later. Voluntary control of A′ by A and of P′ by P permits better communication between A′ and P′.

CHAPTER II

Group Experiments in Telepathy

THE APPEAL which we sent out in 1922 was addressed to a selected public of about 500 persons. Responses included reports of about fifty paranormal cases; and of the fifty persons reporting them, twenty consented to take part in methodical experimentation. Of the twelve persons who made up the homogeneous group in 1926, at least six have experienced very remarkable instances of telepathy, spontaneous or induced. All of the group are bound to me by strong ties of friendship. The group at present includes Archat, an electrical engineer; Budelot, a professor; Captain B., a naval captain; Mme. Chevaillier; Devresse, a draughtsman; Dufour, an engineer; Mlle. Loinard; Rouhier, a pharmacist; Mme. de S., and Mlle. Tirebaud.

Instead of motor automatism or movement unconsciously made, which we tried without much success, we use sensory automatism in our work, since the spontaneous images which appear in the percipient's mind are as involuntary as are his muscular movements, and seem to us better adapted to our particular aim — the detection of a selected image intentionally presented, especially of a visual image. The study of these images will be considered in the first part of this chapter, and we shall reserve for the second part the study of the psychic atmosphere.

In all fields of research the advantage of experimentation over argument is that the former always gives results. Sometimes the results are not sensational, as in the research with which we are here concerned, but they are always instructive. Having no hypothesis to confirm, the student is guided by experimentation, which leads him to change his direction until he finds one which opens a path. Our method was not without advantages. While we had only embryonic paranormal faculties at our command, we could work according to the classical scientific method, that is, by progressing from the simple to the complex.

The method which we used and which is, I think, novel, was the systematic employment of *batteries* of agents and percipients. We have become convinced that as the number of agents increases, their influence becomes less; this is at least something to have discovered. But the use of groups of *percipients* led us to more positive results and to discoveries of greater interest; therefore, we shall disregard for a moment the rôle of the agent, and study rather closely the way in which one becomes a percipient when he already has some small psychic gift. To do this we shall attempt, by means of introspection, to penetrate the world within.

I. Experimentation

To leave the external world, it seems to us, we must abolish perceptions; first, visual perceptions, by remaining in darkness, and then auditory perceptions, by remaining in silence. The power of the senses must be overcome. Then the phosphenes, the after-images, and the retinal light together lay siege to the store of memories which we possess, attempting to wake among them such as are related to their own shape and color. All these must be disregarded. Soon these retinal

excitements fade one by one, and the screen becomes black.

If the percipient is of the usual *visual* type, the memory-images of the day then appear. They also must be extinguished. Kinesthetic impressions may be transmuted and appear as visual images; unconscious auditory impressions, sounds unconsciously perceived, do the same. In one instance the same auditory impression, barely distinct, provoked related images in four percipients in the passive state and with their attention completely directed toward the visual center; the distant sound of an airplane motor, interfering with a telepathic experiment, gave to one of them the idea of an Antwerp carillon; to another, the sound of a bell; the third received the image of an arrow and later of an airplane; and the fourth, the immediate image of the airplane.

Psychic inductors are to be put aside even more completely than sensory perceptions or memory-images. It is important to realize that the simple act of coming together for experimentation is an inductor. If it has been announced that there will be work with drawings, words, numbers, or cards, then in the majority of cases the percipients immediately see drawings, words, numbers, or cards. This is why the experimental material must be constantly varied, with new material at almost every sitting. The psychic inductors which we can least control are those of *imaginative associations,* analogous to the content of daydreams and of revery, in which the emotional background of the subject becomes dominant. There are individual *leit-motifs,* released by a long course of experimentation, which must be eliminated entirely before we proceed to the examination of each experienced perception.

There are also suggestive associations. All reflections and comment must be eliminated. At one sitting the simple words of the agent, "This will be impressive," acted as an inductor to association with exciting ideas. (This is, in fact, the "bait"

of the psychoanalyst.) One percipient saw a gibbet; another, a wounded man in a hospital; another saw tears of blood.

One must create in oneself a void of thought, keeping the attention solely upon the one idea of visualization. We have seen persons of the non-visual type become visual by practicing this exercise. This mono-ideism cannot be long maintained without provoking a change of state approaching sleep, betrayed by the appearance of images and the beginnings of normal dreams which are *not* to be counted in the experiment. When fragmentary images begin to combine to form coherent pictures having meanings, we are dealing with oneiric (dream-like) phenomena, without paranormal significance.

But this analysis of the psychic process in the ordinary person is difficult, even after the experiment. The power of abstraction, instinctive with gifted subjects, is what distinguishes them from the average person. The favorable state has narrow and always very mobile limits; it is characterized in some by difficulty of self-expression, whether by means of speech, writing, or drawing. When it has been attained, the experiment continues as if unconscious auditory impressions or suggestive associations analogous to those in the examples mentioned were still serving as inductors.

The most extraordinary fact that we have observed, dependent necessarily upon our novel experimental conditions, is that percipients frequently get the perception, visual or intuitive, of identical spontaneous images whose origins are not known. Their incoherence would seem to reveal an origin external to the experimenters, but this is, doubtless, only apparent. It was in the course of telepathic experimentation in which we had come to work simultaneously with numerous percipients that phenomena of this kind first forced themselves on our attention. However, from the beginning of my

FIG. 2. 1 (a)

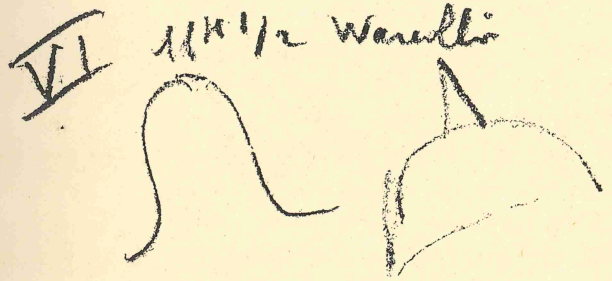


FIG. 2. 1 (b)

research, I had observed the existence of such effects between two sympathetic persons during a moment of passivity; one of them served as agent. Our experiments in 1923 (of which a summary appeared in *Psychica,* October, 1924) revealed numerous cases of similar perceptions passing between percipients, quite independent of those which the agent was trying to transmit. There was veritable mental contagion of errors.

Since this might be attributed to unconscious murmurings between percipients, we worked in 1924 with our percipients isolated — either in different rooms or at still greater distances. However, we continued to observe the wandering images, and this caused us to abandon the explanation of collective unconscious hearing. Indeed, our subjects *did* present evidence for the existence of telepathy. That is, they sometimes detected a thought or a sensation intentionally chosen for transmission; often they obtained the *form,* but not the meaning. An instance is given in Figures 2.1 (a) and 2.1 (b).

The reader is asked to note that in all the illustrations throughout this book, the image selected by the agent will be designated by the letter *a,* the percipient's impressions by the letter *b*. In cases in which more than one percipient took part, the letters *b, b′* and *b″* will be used for the impressions of the various percipients. The method of numbering the figures is to give first the number of the chapter, then after a decimal point the order of the figure in the chapter.

Sometimes a detail is transmitted, but its meaning lost; cf. the horns of the oxen in Figure 2 (b).

The group had agreed before my departure on a journey that I should "send" an image at 7:30 A.M. on the *fifteenth.* The image in my mind at the appointed time was that of the stage of La Scala in Milan, during the presentation of *Orpheus,*

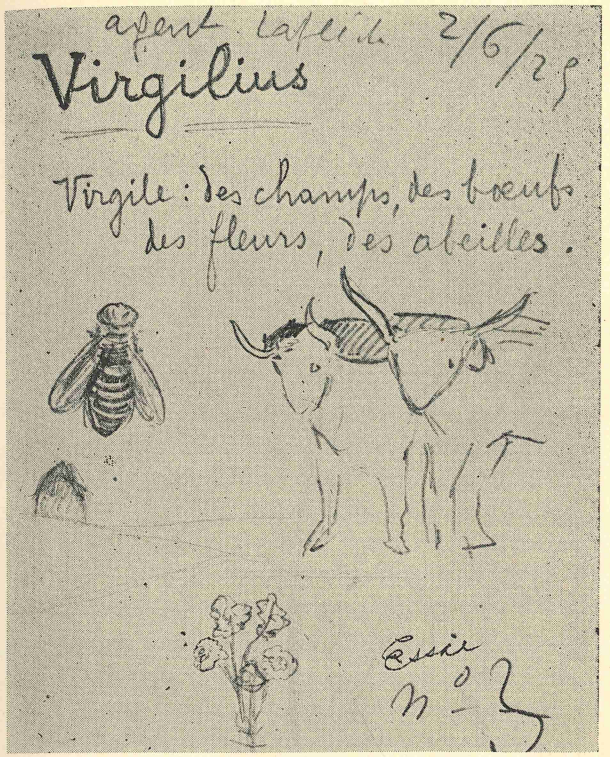


FIG. 2. 2 (a)

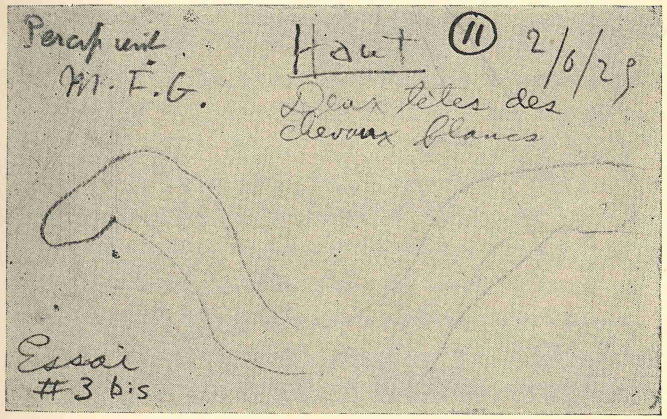


FIG. 2. 2 (b)

which I had heard *the evening before*. I chose the scene in the second act, representing the Elysian Fields, where spirits wander in enchanted gardens. There was a weeping willow in the middle of the stage. All was bathed in a veiled yellow light. As we entered the opera house, we had been struck by its size and its unique horseshoe form.

The percipients were to try to visualize me, as I had been on the evening of April 14. One of the percipients, Mme. S., drew and described my wife and myself seated behind a circular balustrade in a theater or a circus. Her drawing corresponded well with the facts. So did the verbal description of another percipient, Mlle. S., who wrote, "Bench in semicircular shape, tree or wavy foliage, kind of weeping willow, pretty garden scene."

Often a detail is perceived which suggests that something other than telepathy is involved, that is, *telesthesia,* or *clairvoyance* — the extra-sensory perception of an object, rather than of the mental processes of another person. In particular, a detail of the agent's message is often perceived without comprehension of its meaning. Twice an image containing an eye evoked in the percipient the image of an eye, to the exclusion of the rest of the drawing.

In order that a telepathic message may emerge into consciousness, unusual conditions are necessary. There must be a certain "potential," a charge of energy; this charge is apparently most easily transmitted by an *associative image.* (Twice we have seen the same association produced to express similar images, with two percipients but with one agent. The agent's message was a drawing of the Eiffel Tower lying on its side. One percipient described a man looking at the tower as it lay, and seeing it as from under the base. The other percipient described the tower as seen from above.)

We do not know how we recapture a word which we desire to use, but we do know that we must not seek for it. Even less must we try to seize the telepathic message which escapes us.

II. Interpretation of Results

As we continue our research with the aim of transmitting a specified image or sensation, and obtain successful results with increasing frequency, we especially observe "mental contagion" between percipients. What does this tell us of the nature of unconscious transmission of thought?

To begin with, that the accord between an agent and a percipient is more apparent than real. One concentrates his attention, the other makes his mind a blank. The real accord is between *percipients* who are in the same state of consciousness. Evidence of this fact caused us to attempt experimentation in transmitting a message, not from an agent concentrating his attention, but from an agent in whose mind we should cause to arise *subconsciously,* by association of ideas, an image to be transmitted. Of the various possible procedures, we selected the conversion of tactile images into visual images.

From among our best percipients we chose the person who was to act as agent. She relaxed into the passive state, the usual state for *percipients.* A characteristic object was then, in darkness, placed in her hand, and her descriptions were recorded. Percipients in a distant room recorded their impressions. The results rewarded our trouble.

In one experiment, the object was presented to the agent, under the conditions described, by D. The object was the lower jawbone of a woman found in the crypts of St. Etienne

du Mont. Only D., in this case an *active* agent, as distinguished from the passive agent (who received the object in her hand), knew the nature of the object, shown in Figure

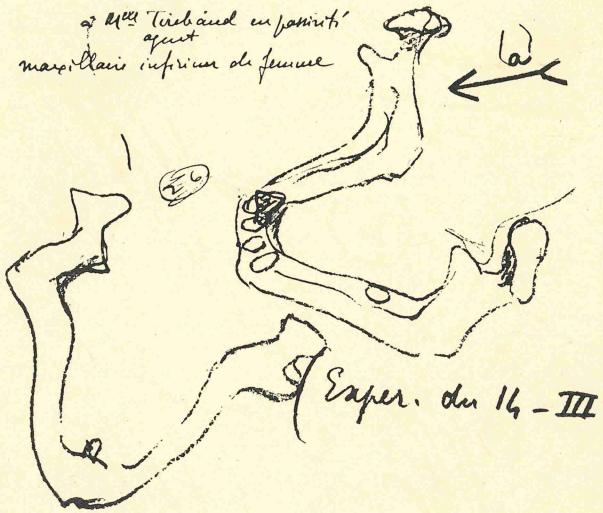


FIG 2. 3 (a)

3 (a). It is obvious that the image itself was not transmitted, but that what the agent *thought* of the object was. The thoughts of the passive agent are found in her description of her part in the experiment. She felt the object and said, "Horns of a little deer, or rather of a roe; not made of wood. I put it against my forehead – idea of a mountain, wild animal, wild springing, very difficult to catch. In the middle of a little point, the nail by which it is attached, a little movable knob, like a joint. It is a stag's horn." The association of ideas is evident.

And what did the percipients receive? In a room at a distance, R., one of the percipients, drew the Greek letter

gamma. R. W., another passive percipient, drew a tined *pitchfork,* a *claw,* and *antlers.* These are shown in Figure 3 (b). The experiment was a complete success. The *thought*

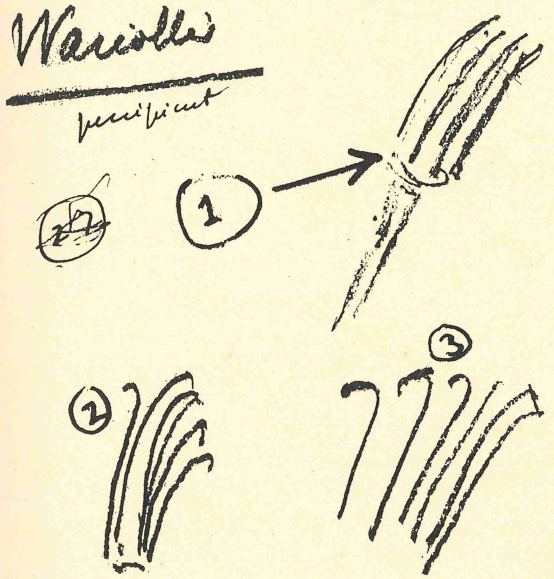


FIG. 2. 3 (b)

provoked by mistaken interpretation in the passive agent's mind was transmitted, while the actual object, and what the experimenter knew about it, were not transmitted.

In this case the explanation of clairvoyance cannot be applied. The phenomenon is one in which the state of consciousness of the *passive agent* plays an important rôle. To employ a term from physical science, a certain "potential" of thought is involved.

To continue with the above experiment. The hour was now 6:00 P.M. At 9:30 that evening, March 14, 1925, I was

to send a message to the American group in New York with whom we had been experimenting for three years. I had tried on that evening not to concentrate my thought upon any object, but to remain passive, and to note whatever images might pass through my mind, in order to see whether they

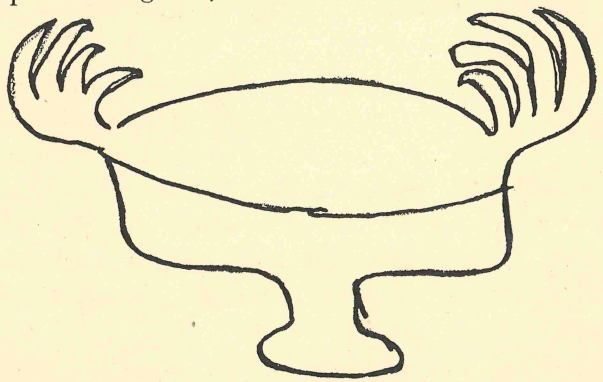


FIG. 2. 3 (b′)

would be the ones transmitted to America. I eliminated the image of the stag's horn of our experiment at six o'clock which had interested us very much, and the only image which I visualized clearly at the fixed hour of 9:30 was a glass funnel, a memory-image from the morning. At the same hour a percipient in New York drew a sort of funnel with handles, which he called a Visigoth helmet, upside down. Another percipient in New York, at the same moment, drew a large compote glass with handles, as she remarked, "like the *horns of a stag*." Her drawing is illustrated in Figure 3 (b′). Here the factor of the intentional disregard of an image, whose importance we had, in fact, suspected, played its part. We might cite several cases to illustrate this point. Two follow:

On February 14, 1925, during an experiment in which the

agents were attempting to send the picture of a sailboat they were drawing, their conversation touched upon a curious toy submarine with a horizontal steam pipe. One of the agents had at first selected a camera as the image to be transmitted, but had discarded the idea. The image received by the percipient was that of a camera, with a horizontal tube emitting smoke!

On May 13, 1925, an agent considered sending the idea of a piece of Empire furniture which he had just looked at with the intention of possible purchase. Later he gave up that idea, and drew from his pocket a paper, which happened to be a concert program. He looked at it steadily. The percipient said, "I am in the midst of the Empire, imperial eagle, Empire desk, round Empire armchair, woman's tunic in Empire style."

Thus telepathic transmission seems to succeed well when material is used which has been recently, but not purposely, thought of by the agent. Caslant, writing of his method of developing paranormal gifts, says, "The thought which one wishes to transmit is to be formulated in the mind, then 'let go'; that is, the thought is to be forgotten, the agent is to imagine that it has taken shape and departed toward the percipient." This would, perhaps, account for the perception of an idea intentionally "forgotten" a few moments before the attempt to transmit a selected image.

Gibotteau says that one must think of the matter to be transmitted, and then *release it suddenly*. "As agent," he says, "one must discharge one's own mind." If this is so, the phenomenon of telepathy would no longer appear to be a simple phenomenon of agreement or sympathy. There would seem to be a transfer of force. He adds, "In order to transmit an image I must strip it, in my own mind, of any intensity which it may possess."

What are we led to conclude regarding the way in which transmission actually takes place? The wave hypothesis is not impossible; but more logical, it seems to me, is the hypothesis of a current, rather than a wave, between agent and percipient. Two persons in sympathetic agreement are like two connected vessels. Thoughts can flow subconsciously from one to the other, but it seems to help if there is, on one side or the other, a raising or lowering of the memory level.

This hypothesis throws light upon the reciprocal feature of communication in certain cases. The explanation is symbolic, of course, like comparisons borrowed from hydrostatics to explain electrical terms. It seems that a difference in psychic potential, that is, a matter of *current,* is involved. Hence we find ourselves, in complex telepathic cases, getting further and further away from the physical wave theory.

Or a personality may be considered as a center from which escape psychic elements, possessing a certain tension which makes them perceivable by subjects in a passive state. Certain unstable elements of the psychic synthesis which constitutes the personality, like certain atoms in complex molecules, seem to be *weakly bound.* This would explain the origin of wandering images. When a group of psychic experimenters meets, a certain atmosphere is created, consisting of these psychic fragments. Consequently, the attention of the subjects is in practice drawn solely to the images in the minds of the group. The images are made up of random impressions, of forgotten or discarded memories, of affective rather than intellectual images. Sometimes they float in the psychic atmosphere after a conversation, as we have, in fact, observed. For instance, when a percipient who is a member of the group arrives late, it is not unusual for him to begin to catch the purport of the conversation which was going on before he came in. We might say that there remains no connection be-

tween the image and the person who has sent it out. One never knows from whom it comes; it has lost its personality. These captive balloons become balloons at large. Two of our experiments suggest a sort of attraction between these images.

D., as percipient, thought of R. W., the agent. D. did not receive the agent's thought, but the agent, in a moment of passivity which interrupted his concentration, perceived what D. was at that moment unconsciously observing: two birds in a tapestry design. The thought of D., directed toward R. W., seems to have caught and borne along a floating image. The case is not unique.

Another experiment reproduced exactly what happens at the telephone when one calls a person just as a third person is making the same call, and finds himself connected, not with the person he called, but with the third person. Two people attempting to get in touch with a third find themselves in touch with each other.

On June 13, 1935, F. G. acted as agent for several percipients, among whom were R. W. and Mlle. M. To become more passive, R. W. attempted for the first time a new method of fixation, consisting of watching a phosphorescent disk in the center of which was a little circle of black velvet; he wished to provoke light hypnosis. R. W. was absolutely the only person who know of the existence of the device, and he kept it in his pocket until he was alone in a special room. Mlle. M. was continually obsessed with the idea of two concentric circles. She drew a circle with a small black circle in the middle.

It would seem that the image of the disk discarded by R. W., since he was intentionally directing his thought toward F. G., was encountered on the way by Mlle. M.'s thought, moving in the same direction.

I think that these last two cases go beyond interpretation

in terms of floating images. It would appear that when we think of some person intensely, there is established a displacement, in what we call space, of the whole content of our mentality.

Wiltse in 1894 affirmed that when he succeeded in interesting his subconscious in an experiment, it acted of itself at moments in which the experiment was no longer being thought of. Several weeks afterward, collective hallucinations were produced in this way in the minds of his friends. Would it be possible for floating images to endure for a time after the death of the person in whose mind they originated?

The psychic atmosphere, rather than the intellectual atmosphere, is the medium in which the mind lives. Psychic elements may be floating in that atmosphere, like crystalline particles, ready to cause crystallization of homogeneous thoughts in the over-saturated solutions of which our subconscious consists.

Sympathetic vibrations, currents, psychic charges borne through space, would seem to be the various means which a thought may employ to pass from one being to another, without use of the senses. To the wave theory of telepathy, we might now add the hypothesis of *emission*.

These are the conclusions to which we have been led by methodical study of the embryonic phenomena of telepathy. Our conviction is that these trails which we have opened by difficult experiments in rough ground, must somewhere meet the roads cleared by psychically gifted subjects, of which Dr. Osty has written.

CHAPTER III

What Is Transmitted?

ALTHOUGH cases of spontaneous telepathy are not rare and are accepted by many persons, attempts at voluntary telepathic transmission from an agent to a percipient are generally unsuccessful. I have been attempting for many years to ascertain the laws of telepathic transmission; but although telepathy appears real, its laws are very obscure. Sometimes the message chosen by the agent for transmission fails to reach the percipient as an unchanged whole. Also, ideas which are repressed by the agent seem to be transmitted better than those upon which he concentrates his attention. Mental contagion between percipients during an experiment seems more and more definitely demonstrated.

I am glad to state that we feel we are not on a false trail, and that successes seem slowly to increase in number, as a rule, for each member of our group. It appears that the telepathic faculty may, to some extent, be capable of development. This will be considered in a later chapter.

We shall now consider the question, "What is transmitted?" In doing so we shall respond to the appeal made by Mrs. Sidgwick to the International Congress for Psychical Research in Warsaw. Mrs. Sidgwick pointed out the necessity of undertaking new research into telepathy, with the purpose of ex-

plaining the discouraging irregularity of successful experiments. She said:

Many questions cry for solution . . . What is transferred? Is it the name of the object, or the idea of it, or a picture or other quasi-sensory impression of it? . . . We find, for instance, that the percipient gets part of the agent's idea, but fails to get the rest; or he gets it in a distorted form; or having got it, he misinterprets it. Are we to infer that part of the idea is lost in the transference and does not reach any part of the percipient's mind? Or does it reach some part of his mind complete—is there in fact complete subconscious apprehension of it, though before it emerges into consciousness it gets altered, either owing to inherent difficulty in passing from subconscious to conscious, or owing to the influence of irrelevant associations of ideas mixing themselves with it? . . . It is clear that if we could answer these questions and others which may easily suggest themselves, we should know a great deal more about telepathy than we do; and not only, I think, about telepathy, but about the working of the human mind.

. . . To control conditions for success we must depend on observation of what happens when experiments do succeed for light on the process, and for a useful examination of this kind we need a great many to examine. . . . I have lately undertaken an examination of experiments published by the English Society seeking for such light. . . . I will extract from it two or three cases illustrative of the kind of light which partially successful experiments may throw on difficulties of transference. I say partially successful, because, as will readily be perceived, the experiments most likely to be useful for the purpose of observing the process of telepathy so far as it concerns the percipient's mind, are those in which a portion only of the desired impression is transferred, or in which the impression only develops by degrees. If the agent tries to transfer a definite idea, and the percipient is able immediately to state what it is, we have a good case of telepathy . . . but we learn nothing about the process of transmission.

Our experiments will enable us to reply to some of these questions, or at least to open a discussion of them.

First Case.— Rawson. The percipient received the intended idea in this case, or at least the most important part of the idea, by means of a material object which was in his field of view and which had absolutely no relation to the object of which the agent had thought.

The agent, Mrs. L., had drawn an hourglass. The percipient, Mrs. B., drew a gilded four-leaf clover which was an ornament on the corner of a picture frame opposite her. She said, "I was looking vacantly before me and I noticed this. It's the only idea I have and I will draw it!" But she reproduced only two of the leaves of the clover, and these two were vertically opposite, so that they resembled exactly the drawing of the hourglass, although the support, which was the most important part of the image, was not reproduced.

Second Case — Schmoll and Mabire. An apparent struggle is observed in the percipient's mind between the *idea* of the object intended for transmission, and its *form*. Though the percipient drew the object exactly, he did not succeed in grasping what the object was.

The drawing was that of a lyre, the form of which was like that of a vase mounted on a pedestal. The percipient said, "I have got the notion of a flute — or of some musical instrument or other. I see many lines. It resembles a vase, but it is not a vase. Now it is like a harp; there are several strings — like a little gridiron."

Third Case — Gilbert Murray. This case shows that the impression of the percipient, even when it is plain and correct, may not embody, as a whole, what the agent is attempting to transmit.

The idea was of an imaginary scene in which Miss N. was beneath a calabash tree in Smyrna. Miss N. was a friend of

the family. The percipient said, "Modern Greek of some kind – sort of Asia Minor place – a tree and women sitting under it – a particular tree – girl sitting under it –– she does not belong to the place – she is English – something to do with a poet [correct] – Can't be Mrs. Kipling – no, it is a girl – rather like one of the O ––– s – don't think I can get her."

Classification of Cases

The striking thing in the cases noted by Mrs. Sidgwick is the analytic character of the transmission, and the incomplete synthesis effected in the emergence. We have thought it interesting to determine the number of cases in our own recent experiments in which (1) form alone, (2) form apart from idea, and (3) idea alone have been transmitted. We shall undertake an examination of our results before proceeding to the study of the cause of dissociation of ideas in telepathic transmission.

We continued, further than did Mrs. Sidgwick, the analysis of detail in transmission. This is our classification of the thirty-five unpublished cases which we shall now consider:

Correspondence in form or color only	7 cases
Transmission of movement or idea of movement	5 cases
Transmission of details of form, isolated and not understood	1 case
Transmission of form, or part of form, with subconscious understanding, and consequent transmission of the idea or of a part of the idea	14 cases
Transmission of idea alone, or part of idea	6 cases
Complete transmission, with understanding of both form and idea	2 cases

In the majority of cases, the *idea* seems to have been com-

pletely or partially transmitted, but, in a considerable number, *form* alone, without the idea, is transmitted.

Cases of involuntary spontaneous transmission, including transmission of discarded or repressed ideas, and of contagion between percipients, are beyond the reach of statistical analysis.

A. *Transmission of Colors*

In many experiments in which colored images were concerned, the colors were transmitted as often as was the form or idea. We cannot know *how* color is transmitted, but the important thing is that color *is* transmitted, independently of form. Some subjects never perceive colors in telepathic images; others, like myself, perceive colors as well as form. With the latter, color may be transmitted well, but in connection with a mistaken image. For instance, in the case of a fish of a certain shade of red, the exact shade may get through in association with a billiard ball of the same color, although the image of the red fish may be transmitted in the form of a white fish of another species.

This somewhat unexpected phenomenon may possibly find an explanation in "chromatic" neurones. Color vision is distinct from vision concerned with mere intensity of light; there may be different kinds of neurones serving these different purposes.[1]

This anomaly of transmission is of value to us because it shows in the most indisputable way that, in *telepathic* reception at least, the cerebral neurones play a part like that of the keyboard of a piano during the performance of a piece of music. The keys seem to be moved, as it were, from the out-

[1] Piéron, Henri, *Thought and the Brain*, Harcourt, Brace & Company, Inc., New York, 1927, p. 114.

side, whereas in our habitual perception they are moved from within, like the keys of a mechanical player-piano.

B. *Transmission of Form*

In many cases transmission certainly does not take place by means of the idea. The image appears as an ensemble of lines, like a telephotograph.

Case 1 — Dromedary, Conventionalized. The experimenters were at a distance of about 350 miles, and the percipient, R. W., was "late" by exactly twelve hours. There was no transmission of idea, but the form alone certainly seems to have come through to the percipient. It was evidently he who altered the form, perhaps because there was in the contents of his mind no copy of the image transmitted, or perhaps because of the time elapsed between the reception and emergence of the message, this elapsed time including time when the percipient was asleep. The figure perceived was the hood of a hygrometer, with the idea of prostration.

C. *Transmission of Movement or of the Idea of Movement*

Case 2 — Swastika. The agent drew first a swastika, then an enclosing circle. Finally he colored the swastika green, the circle blue. From 9:20 to 9:35 P.M. he revolved the paper in his hands, clockwise. "But," he says, "from the beginning — indeed, before the experiment began — I had in mind the idea of a revolving machine and of a circle, so the idea of rotation was really an integral part of the drawing, from the beginning of the sitting." This idea was received, connected with the idea of a spinning top; and I may add that the exact

shade of green came to the percipient, although in connection with a mistaken image.

Case 3 — Turbine, of Type Used for Pearl Screening. In this experiment the agent attempted to transmit the idea, with the drawing (visual image), of a turbine in motion. *This was done in the course of a series of attempts to transmit memories common to the two experimenters.* This method enabled us to establish the important fact that transmission does not take place because of a common memory-image, or, more correctly, that there are usually no common memories held by two persons, and consequently that the cause of transmission is not a psychic parallelism due to a community of impressions following a long conversation. The idea of a rotating mechanism was indeed transmitted, as can be seen from Figure 1 (b), but *not* in connection with those particular memories which the agent desired to transmit.

Case 4 — Fan. In this case the agent was in the room with the percipient. The agent looked at a drawing of a fan. The percipient received many images. Three were similar to the drawing in form; and the fourth, a sketch of spread electroscope leaves,[3] indicated that the idea of motion was received.

D. *Transmission of Form, or Part of Form, with an Appearance of Subconscious Understanding, Causing Transmission of the Idea, or Part of the Idea.*

Case 5 — The Martians. The agent read passages from Wells' *War of the Worlds,* concerned with a burning ray, the people of Mars, etc. Several of the percipients, in distant rooms at the *Institut,* perceived the extraordinary description

[3] An electroscope is a simple device which detects the presence of an electric charge by a spreading of two very thin gold leaves.

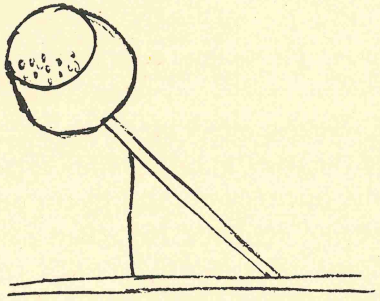


FIG 3. 1 (a)

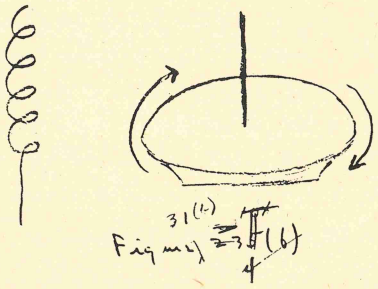


FIG 3. 1 (b)

indistinctly. One drew a fountain with four jets, resembling a sketch (drawn by the agent from an illustration in the book) of the tentacles of a Martian, and a diver's suit. The drawing of the Martians was oddly like the head of a diver's suit.

Case 6 — Pond. The agent, Captain B., looked at a picture post card showing a pond, an island, and distant trees, with swans in the foreground. The percipient, Du., in another room, received the trees and the pond perfectly. He perceived the shape of the little island indistinctly, and the idea of animals, which he took for dogs. He added a boat to the pond.

Case 7 — Façade of Greek Temple. The same experimenters as in the case just noted, at the same sitting and under the same conditions, obtained a second result of the same order. The form of the façade was perceived, but was changed into a Chinese pagoda.

Case 8 — Turret (at Carcassonne). The agent and percipients were in different rooms. The agent looked at a picture card showing the Carcassonne turret. One of the percipients saw a kiosk, another a *temple de l'amour* at the home of Mlle. S. L. This is a case of apparent contagion between two percipients, for their drawings resembled each other more than they did the image transmitted by the agent.

Case 9 — Rose Cross. The agent and percipient were separated by a distance of 600 kilometers. This is one of the most interesting transmissions we obtained, because the form and the idea of the drawing were completely transmitted, although in fragments, without, however, comprehension on the part of the percipient. The two colors of the rose were

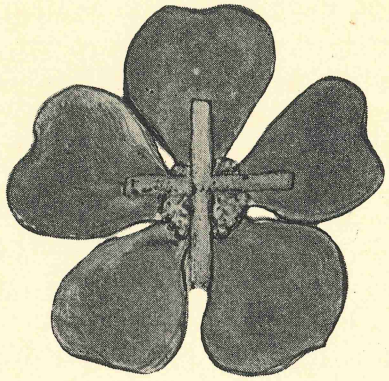


FIG. 3. 2 (a)

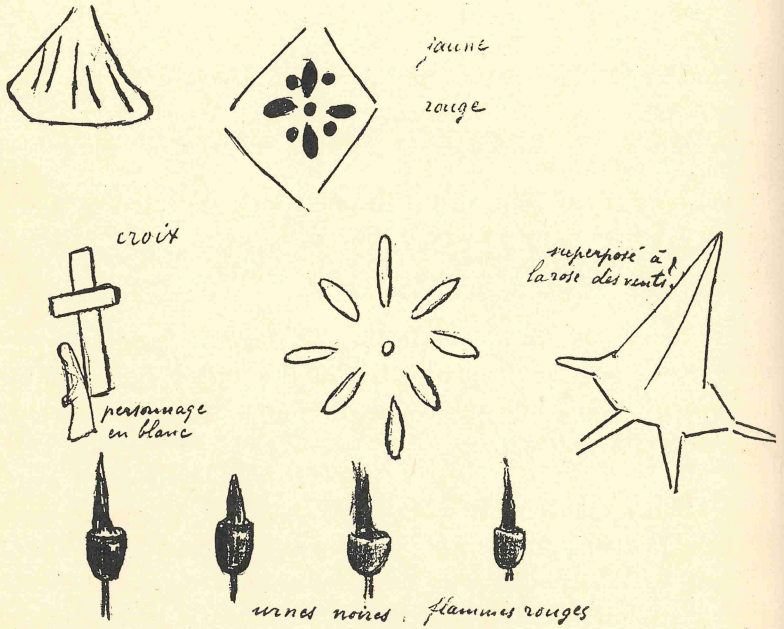


FIG 3. 2 (b)

exactly transmitted; the blue of the cross appeared as white, and the mystic, even occult idea was received. See Figure 2.

In another experiment, not illustrated, the agent attempted to send to the percipient a mental image, the memory of a picture she owned, representing a mystic idea of this same order: "The seven rays emanating from the One." She called to mind, without aid from the picture itself, a dove, the wings of knowledge, a "cup of pure love," a cross, and a rose. The percipient thought of a triangle formed by small triangles; of little bells; of wings, light as those of a butterfly; and of a swan, with an idea of Lohengrin, of light feathers, and of cornflowers; but there was no thought of a rose or of a cross. When the agent later showed the percipient the picture of which she had thought, he recognized it immediately.

E. *Transmission of Idea Alone, or of Part of Idea*

Five cases will be described, none of which is illustrated.

(1) May, 1926. The agent, in one room, repeated in a low voice, "To be or not to be." The percipient, R. W., in another room, thought of a cross in a graveyard.

(2) Same day, same conditions. The agent thought of the river Seine as seen from the top of the Eiffel Tower. The percipient thought of isothermic lines on a map of the world, and of a city map.

(3) Same conditions. The agent, Captain B., wrote and pronounced in a low voice, "Honor and country." The percipient, R. W., thought of a French flag blowing in the wind, with a golden star above it, but did not catch the meaning of the image.

(4) March, 1926. De. read aloud to R. W., who was acting as the principal agent, a passage chosen at random from *Histoire d'une âme* (pp. 53-54), by "Little Ste. Thérèse of the Infant Jesus." The percipients were all in another room. Mme. B. said, "Pure sky." A. said, "Young communicant." Mlle. S. thought of a phrase she did not recognize, "She must follow her difficult way," of a painful ascent, and of a cloister which reminded her of Mont St. Michel. These perceptions all corresponded perfectly, not only with the book, but with the passage which was being read to the agent. There were five closed doors between the agent and the percipients.

(5) In this case the whole idea was perceived in separate fragments by different percipients. On October 16, 1926, de S., acting as agent, sent from Loiret the idea of wireless telegraph waves, and of their relation to telepathy. At the *Institut* all the percipients received what appeared to be odd parts of the message. They thought of a wireless telegraph outfit, resistance, dials, and curves indicating wireless waves. The words "electric wire" were spoken, and even the words *"per orbem,"* the last two words of the motto of a French telegraph service *(vox clamans per orbem),* of which neither agent nor percipients were thinking.

Case 10 — Skeleton. On July 3, 1926, de S., about 100 miles from Paris, acted as agent. R. W. acted as percipient at the *Institut.* The agent traced a skull from the Larousse encyclopaedia article on skeletons. The percipient drew a little skeleton which he placed oddly in a scheme of evolution and involution, which he had seen several years before. His drawing corresponded to the philosophic ideas of the agent, for he had written under his drawing of the skull the words *death, rebirth,* and *wisdom.*

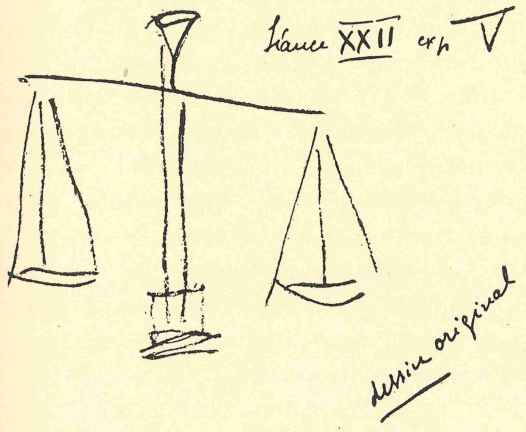


FIG. 3. 3 (a)

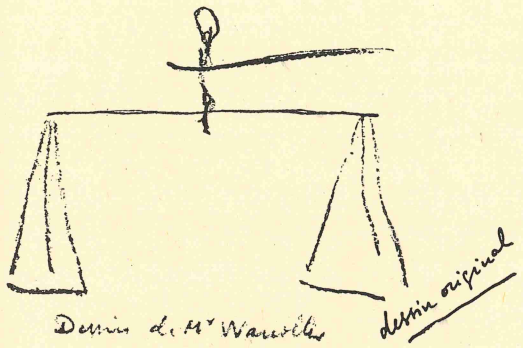


FIG. 3. 3 (b)

F. *Complete Transmission of Both Form and Idea*

Case 11 — Balances. On April 17, 1926, the principal agent, A., and the percipient, R. W., were in different rooms. A. talked with others about various kinds of balances, and made a drawing of a laboratory balance, in which the pans were

suspended by three wires. The percipient thought of A. as holding in his hand such a balance, the pans of which were hung by three wires. See Figure 3.

In this case success was perfect as to transmission of the idea of balances and the form of the balance, for it is not usual for the pans to be held by three wires. However, the likeness of the drawings is not absolute. The support of the beam is different in the two, for in one it rests upon a base, and in the other it is held by the hand. There is a still more important difference, related to the transmission of a memory common to the two experimenters. A. was thinking of an occasion eighteen years earlier, on which he and R. W. together had seen a pair of scales, one of whose pans was higher than the other. Both of the experimenters still remembered it. But the transmission took place without the use of this latent memory. It is not, then, memory as *memory* which is transmitted. It must be noted that a memory recalled is no longer a memory; it becomes a part of the present, and is transmitted as such.

Case 12 — Rabbit. On June 26, 1926, at the appointed hour, the agent made for transmission a drawing of a rabbit. The percipient, Du., who was to have been in another room at the *Institut* at this time, arrived late, and began his work half an hour after the agent had made the drawing. His impression is shown in Figure 4 (b).

This was a very important experiment. Its success did not consist of complete transmission of the image, for that would actually have taught us nothing. In fact, there is not absolute identity in the drawings, for they are oppositely oriented. But there are more significant factors. Immediately upon his arrival, the percipient caught a general idea of the surroundings in which the agent had been, and drew them as shown.

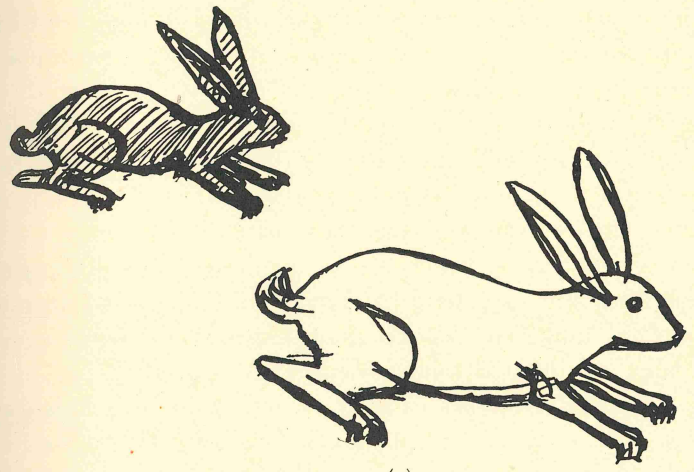


FIG 3. 4 (a)

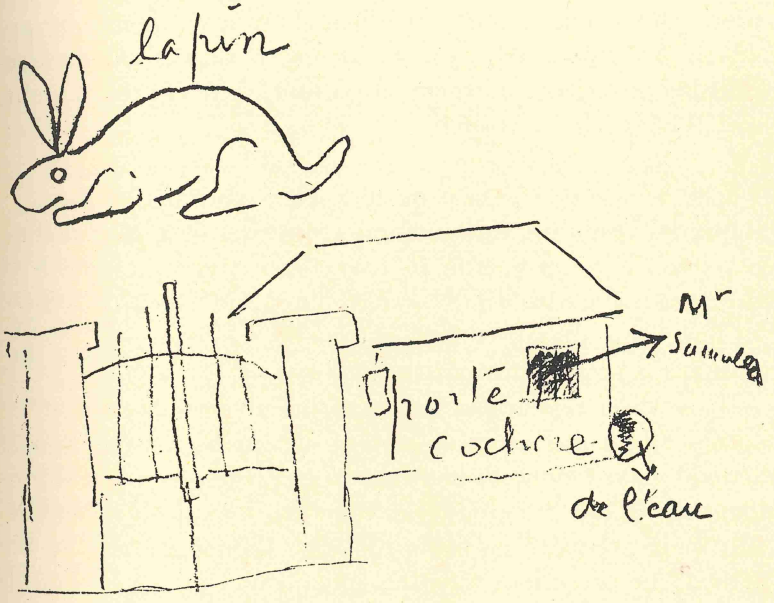


FIG. 3. 4 (b)

The agent had made his drawing while behind a grilled window, with water running beneath. The percipient also experienced rheumatic pains, as had the agent while drawing. He even searched his own past to recall the name *Péladan,* which was well known to the agent. This instantaneous perception was like a deep fathoming of the whole content of the agent's mind.

It is to be noted that at the exact moment of the experiment the other percipients received no messages. And we must observe that the percipient, Du., barely knew the agent, having met him once previously at a lecture.

But let us return to the study of imperfect transmissions, and ask a pertinent question. "What goes on in the subconscious mind of an agent when he looks at a drawing?" Fortunately we have material on this subject, thanks to the research of Mourly Vold. Vold studied normal dreams by an objective method, attempting to cause experimental dreams by stimulating either the sense of touch or the sense of sight of the subject before the latter went to sleep. Vaschide[4] writes of Vold's work as follows:

> In his experiment with visual representation during dreams, Vold gave the subject a box each evening which he was not to open until he was in bed. Before lying down, the subject was to look for a short time at the objects contained in the box. He was then to close his eyes and lie down, after having extinguished the lamp without looking at it. In the morning the subjects, principally students and tutors, were asked for an account of their experiences and dreams.
>
> The objects contained in the boxes were of various kinds. Objects such as hyacinth blossoms, little pieces of copper, drawings of dogs, and drawings of soldiers with lances were used. The dimensions of the object never exceeded eight centimeters.
>
> The results gave evidence of a certain connection, sometimes

[4] Vaschide, *Le Sommeil et les rêves,* Flammarion, Paris, pp. 98-100.

> rather definite, between the object offered and the dream provoked. In most cases this object was modified, changed. One interesting fact is that, in the dream of the object offered, color seemed to persist longer than any other physical quality of the object.

Thus, when we want to transmit a message to our subconscious, and from the subconscious (back) into consciousness, we meet exactly the same difficulties, the same distortions, as in the telepathic transmission (of a message) between one person and another.

If it is not easy to act at will upon one's subconscious it does not necessarily mean that the subconscious is not influenced with great ease; but here we are no longer concerned with experimentation. It is affectivity, *emotion,* which takes charge of the matter. It is to *feeling* that we must appeal when we wish the subconscious to intervene, either in our consciousness or in our organic unconsciousness, as Lane and many others well understood. It is known, in fact, that feeling has a favorable effect upon telepathic transmission.

G. *Transmission of Fragments*

Our aim is to cause, by experimental means, an impression or an image to pass into our subconscious. Let us try to analyze the process. A human personality "crouches at the center" of its memories like a spider in its web. From moment to moment during the waking state, through all the strata of memory, waking attention converges upon the personality, as if acted upon by a *centripetal* force.

The passivity of sleep is a *centrifugal* force, by which attention is scattered *into* the strata of memory. If one has looked at an object O before going to sleep, attention, in scattering, will arouse images O^1, O^2, and O^3, both in the most recently formed and in the oldest strata of memory. These

strata are visual, auditory, olfactory, gustatory, tactile, and coenesthetic.

If, for example, the agent looks at a flower, visual images are excited, the colors and forms (O^1, O^2, etc.) of all the flowers he has perceived from childhood. These images will associate themselves in the web of memory with all others of the same nature, according to the well-known laws of association of ideas. On the return of attention to the center, that is, at the time of waking, the excitation will again affect the different strata of memory. Evidently, it will no longer continue to be the original object O which will be perceived, but memories of the images O^1 and O^2, in association with other elements more or less foreign to it. These memories will stimulate sensations in the cortical centers. Since the visual center is the most important of those concerned, that center will be most affected. The chromatic neurones will be affected independently of those of form. All that Mourly Vold maintains is verifiable in our experience. There is only one difference, and this does not seem to be as great as one might think; the personality which has looked at the object is not the one which dreams of it.

The passive state of the percipient in a telepathic experiment is one of conscious sleep. The images appearing in that state are dream-images. Their associated "inductor" is of telepathic origin. The characteristic of this state is the *rapport* between the percipient and some selected personality, because the attention which has been detached from the dreamer's own personality is not dispersed, as in normal sleep, but is, on the contrary, *directed* toward the agent. In fact, an equilibrium is established between that centrifugal state, which allows the percipient's attention to reach out toward the memory strata of the agent, and the centripetal state, which brings in the agent's impressions by passage through

the percipient's memory strata. Telepathic perception carries a movement of going and coming. Fatigue is a favorable condition, since it enables one to fall into a deeper state, but not of sleep. One does not fall into this state suddenly. He lets himself slip, like a pearl-fisherman, down a rope; and he comes up faster than he went down, and often with empty hands. On the other hand, in nocturnal sleep the subject falls, as it were, in a few minutes down a deep hole, and may spend hours in coming up again, that is, in regaining the waking state.

That is why reception and telepathic emergence require some time. The action is not immediate in the case of the percipient, although it seems to me to be spontaneous for the agent. The slightest shocks at the middle of the spider's web are transmitted to all the distant threads. When the agent looks at the object O or at a drawing, or even when he calls to mind a simple memory-image, immediately at O^1 and O^2 there are recollections, and even associations which remain usually unconscious, and are all the better transmitted.

It is thus that fragmentation of the message begins. I say "begins" because the distortion is double, since the message has to traverse the memory strata of both the agent's and the percipient's mind. It is interesting to note that we have been able to establish individual differences between agents and between percipients. For example, one percipient, Du., consistently distorts the messages very little, and consequently often interprets them exactly. But another percipient, R. W., distorts them to such a degree that he cannot understand them, and so is forced to dissect them. That is why we think that distortions are more important in percipients than in agents.

Conscious associations experienced by the agent are rarely transmitted. We may say that the clearer the message to be

sent is in mind, the less frequently it arrives. In a complex image there are details which do not interest the agent, but which are nevertheless transmitted, just as one often dreams of obscure details. If the agent draws the message, there may emerge details of the drawing whose elements have been sketched one after the other, almost unconsciously. We find examples of fragmentary transmission in almost all experimental cases. Let us cite a few examples.

Case 13 — Violin. In this case the agent, separated from the percipient by a distance of 600 kilometers, made a drawing of a violin as a message for transmission. The percipient drew two vague figures like footprints, resembling somewhat the shape of the violin, and four musical notes. The fragmentation here seems to have been due to the agent. The idea of music arrived independently of the form of the drawing. The form was not well interpreted by the percipient.

Case 14 — Squirrel with Skylark on his Back. In this case D. read to the principal agent, R. W., a passage from Ossendowski's *Beasts, Men, and Gods.* R. W. made a drawing of a squirrel with a sky-lark on its back. The percipient drew an animal-skin rug. The idea of animals had been in the agent's subconscious mind all day, for he had carried with him for hours the memory-image of an animal skin.

The effect is like that of a message learned by heart without being understood, and transmitted by a mute intermediary who can express himself only by gestures and by making use of whatever knickknacks may happen to be lying about. The subconscious talks "baby talk," and is difficult to understand.

H. *Transmission by Repression*

Case 15 — The Number 364. June 26, 1926. Agent, A.; percipient, Mlle. B.

A. attempted to transmit to R. W., a percipient, a number with three digits. Thinking of the number 364, R. W. discarded the impression and put it out of his mind because he considered it too near to 365, the number of days in the year, which, as such, might come spontaneously to mind. The experiment was attempted again with several other numbers, and was then interrupted. Mlle. B. arrived after this attempt had been completed, at the hour set for a long-distance telepathic experiment in which she and A. were to act as percipients. She was developing at the time the practice of automatic writing. Her hand at once wrote, in the midst of undecipherable characters, but distinctly apart from them and very legibly, the number 364. She did not know that experiments with numbers had been attempted before she arrived. It will be observed that in cases in which repressed images are transmitted, the images perceived are often much less fragmentary, more comprehensible, or may even be better understood.

Conclusions

Having considered the above cases, I think that we have now answered some of the questions propounded by Mrs. Sidgwick, in particular those concerned with the three cases cited at the beginning of this chapter.

First Case — Rawson. The impression of an hourglass transmitted by means of a perception of a four-leafed clover. I suppose that the image of an hourglass was latent as a whole in the percipient's unconscious, and that it appeared only as a fragment because at that moment it was able to attach itself to an image which happened to be vividly present in the percipient's field of vision. If his eyes had rested at that in-

stant upon an egg, the telepathic impression would have been associated with the visual image, and it would have been the idea of the *use* of the object, instead of the idea of its *form,* which would have been transmitted.

It is unusual for the percipient to keep his eyes open during our experiments, so it is almost always by means of "decomposed" memories that transmission takes place. A latent image expresses itself, using fragments of memory-images, much more easily than does a present perception. These fragments are often drawn from very distinct memories which, by chance or association, are in the focal point of the percipient's attention.

Our impression is, in effect, that we are always dreaming, whether awake or asleep, but that our dreams remain subconscious, except at rare moments when our attention wanders, and that it is through these dreams that the telepathic impression occasionally finds the means of expressing itself.

Second Case — Schmoll and Mabire. The case of the lyre. The idea of music arrived, in this case, independently of the idea of form. The interpretation placed upon the preceding case might suffice to explain this one; but there is another, namely, that the agent may have sent the idea of music independently of the idea of the instrument, and after it. Two different messages may have been sent. This might be the explanation for the misunderstanding of the percipient. He would not connect one with the other. He might have done it consciously, but he did well *not* to, for that is the surest way to go wrong.

Third Case — Gilbert Murray. Miss N. under a tree at Smyrna. The principal subject failed to be transmitted. That

is, the personality and name of Miss N. were not received by the percipient. The explanation seems to be the same as in the previous case. The message was broken into parts by the agent as it was sent, and the principal idea, precisely because it was principal in the agent's mind, was so conscious that he did not *release* it.

Of course these interpretations are simply hypotheses for further study. They are good enough to serve as the basis for discussion. If they fail, they will be replaced by better ones.

To sum up, in the majority of successful experiments in waking telepathy, there seem to be independent transmissions of emotions, images, and concepts. Properly speaking, there is no "transmission of *thought.*" This is a particularly inappropriate term, and the reasons are easily understood. Thought includes both a cerebral factor, conscious rather than subconscious, which perhaps cannot be transmitted, and also another factor, its echo in a psychic world where telepathy rules. The little cerebral world is strictly individual; the other world is common to all beings, like the air we breathe.

That is why, no matter how closely the curtain may be drawn upon the scene of our thoughts, behind the stage-settings there is still the concealed machinery, and even the footlights, all visible from the wings.

CHAPTER IV

Enlargement of Our Group for Long Distance Work[1]

THE CHIEF purpose of the group which I founded with a few friends, in 1922, for the study of telepathy was to establish stations for sending and receiving messages over great distances. Most encouraging results were obtained in various countries — England, Belgium, Switzerland, the United States, and, later, Germany. Thirty volunteers took part in a series of experiments in 1923. Among these collaborators, I wish to thank Wietrich and Mme. Mowbray; my unknown correspondents, Tiggerstedt in Finland, Hillengenberg in Holland, Mme. Hermione Ramsden in Norway — whose telepathic work is classic — and Schmidt of Berlin.

Carl Vett, the active founder of the International Parapsychical Congress, had the happy thought of putting us in touch with Dr. Gardner Murphy, of Columbia University, New York, who was undertaking work similar to ours, with a group in the United States.

We met Dr. Murphy in Paris in 1923. After only a few hours' acquaintance, we decided to collaborate for as long

[1] The author and I have always been doubtful whether to classify the present material as "further evidence" of telepathy. We regretted in 1923 — and still more deeply regret today — the impossibility, under the given human circumstances, of using a method lending itself to statistical control. It seems nevertheless to have some interest, both as an effort in the direction of international cooperation and as a study of several psychological factors which play an important part in telepathic experiments. — ED.

a time as possible in transatlantic experiments in order to throw what light we could on the question of telepathic transmission at very great distances. We worked on that during 1924 and 1925, and established strong bonds of mutual esteem.

We intended that nothing should interrupt our experiments; but Dr. Murphy was taken seriously ill, and has not been able to direct his group during these later years. Several members of his American group have been in Paris, and we remember them with keen sympathy. One of them, Fenn Germer, stayed here long enough to take part in the work of our Paris group.

Dr. Murphy and I exchanged long letters, each writing in his own language. Here is a portion of a letter from him written September 30, 1926:

"I hope that there will be a report on your experiments at the Congress; and I should prefer that you yourself should present it. You are free to make any use you wish of the experiments we made together. If I am better next year, I shall certainly take up the work again."

Our experiments may be divided into two series. Sometimes the New York group tried to send, by thinking of it, a message which the Paris group was to receive; sometimes the rôles were reversed. There were thirty-five sittings; sometimes once a week, sometimes once a fortnight. Of course, we took into account the difference in time between the cities. During 1923, 1924, 1925, the New York group acted twenty times as percipient and fifteen times as agent. I can give here only a summary of the results, reminding the reader that they are incomplete because of the unavoidable interruption of our collaborator's work. The Americans appear to have been better agents than percipients, in contrast with the French.

1923 - 1924 - 1925

	Number of Experiments	Number of Coincidences
New York-Paris	15	5
Paris-New York	20	5

It is to be observed that the interpretation of positive results by chance does not explain the fact that the best coincidences between us as agents and the American percipients were obtained with those persons who had previously visited us in Paris, and with whom we were accordingly acquainted. When other percipients in the same group, unknown to [illegible] had coincidences, the former – those whom we knew – may have acted as guides for them; it would seem to be a case of what I have called "mental contagion," established between percipients working together, even though far apart. This phenomenon, which we had, so to speak, discovered (for it had not been previously noticed) because we were the first to undertake collective experiments, was manifested in Gardner Murphy's New York group as well as in ours in Paris.

In trials of telepathy, properly so called, two experiments were attempted, making use of sheets of blank paper as *supports for thought,* if one may so express oneself – paper addressed by the agents to the group of percipients. The results were not favorable; that is, there were coincidences only in those cases where we were the percipients. I shall mention some facts which particularly attracted my attention and Dr. Murphy's. They may be classed in two principal categories:

A. Transmission of a subject whose general class had been determined before the experiment.

B. Transmission of an undetermined subject.

The method of transmission by the agents was generally

active mono-ideism, the fixing of the thought upon the subject of the message, which was, except in rare cases, a drawing. The method of the percipients was passive mono-ideism, expectant attention directed toward such response as their imagination might offer to the question, "What are our friends in Paris – or in New York – doing?"

I. *March 22, 1924. Paris-New York*

Subject determined: a page of a book.

Four agents of the Paris group had met on the afternoon of that day to choose a book and a certain page, in order to send that page as a message; this had been agreed with the American group and with different persons in France and in other parts of Europe. The hour set for the transmission was 9:30 P.M. Paris time, which was 4:30 P.M. for the American group.

The book chosen was the Bible, the first ten verses on the first page.

In America, only one percipient in five got an idea which can be connected with the subject transmitted. That was Miss F. H., who had come to see us in Paris a short time before. She wrote automatically the following words:

1. "Making . . . have the staff of course I would be" [which corresponds to nothing.]

2. Tree of life. [This we put down as a coincidence, for the words appear, not on the first page of the Bible, but in Chapter 2, verse 9.]

A member of the Paris group, Mlle. S. L., who was in Courbevoie, a suburb, tried to get the message. She wrote three sentences. Before the hour set, thinking suddenly of the message, she wrote at 9:15 P.M.:

1. "If my thought had wings."

Then a little later:

2. "Love your neighbor as yourself."

At 3:00 she wrote:

3. "On the Tables of the Law of Moses," with a thought of page 18, or verse 18. These words offer curious coincidences, by approximation.

Finally, from Christiania, Mme. H. R. wrote to us:

"On the 22nd of March, we received what might well be the page of a book, but it was in Norwegian; I send it to you with the translation. "The eye is the light of the soul; and the ear is the door of the soul; but an angel with a flaming sword stands between the soul and the material world, and no one can open the door, unless he can meet the stern look of the angel without flinching." [The angel with the flaming sword appears in the fourth chapter of Genesis, 24th verse.]

We did not consider these results significant, for it seemed to us, on reflection, that our message was badly chosen, the Bible being the book which would offer the most opportunity for coincidence. Among the French percipients, two had an idea of the Bible, but put it aside, thinking that since everyone knew the Bible, that could not be the message. However, this trial seems to us worth quoting.

II. *May 17, 1924. New York-Paris.*

Subject determined: a sentence of a few words, having an emotional content.

Here is Gardner Murphy's letter of May 18:

The subject of the experiment yesterday was the sentence, "Oh, that this too, too solid flesh would melt" . . . and the accompanying emotion (distress and desire for suicide). (It is the moment when Hamlet, alone, looking at himself from head to foot, says,

"O, that this too, too solid flesh would melt,
Thaw and resolve itself into a dew!
Or that the Everlasting had not fix'd
His canon 'gainst self-slaughter!")

—*Hamlet,* Act I, Scene 2.

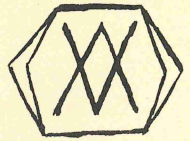


FIG. 4. 1 (a)

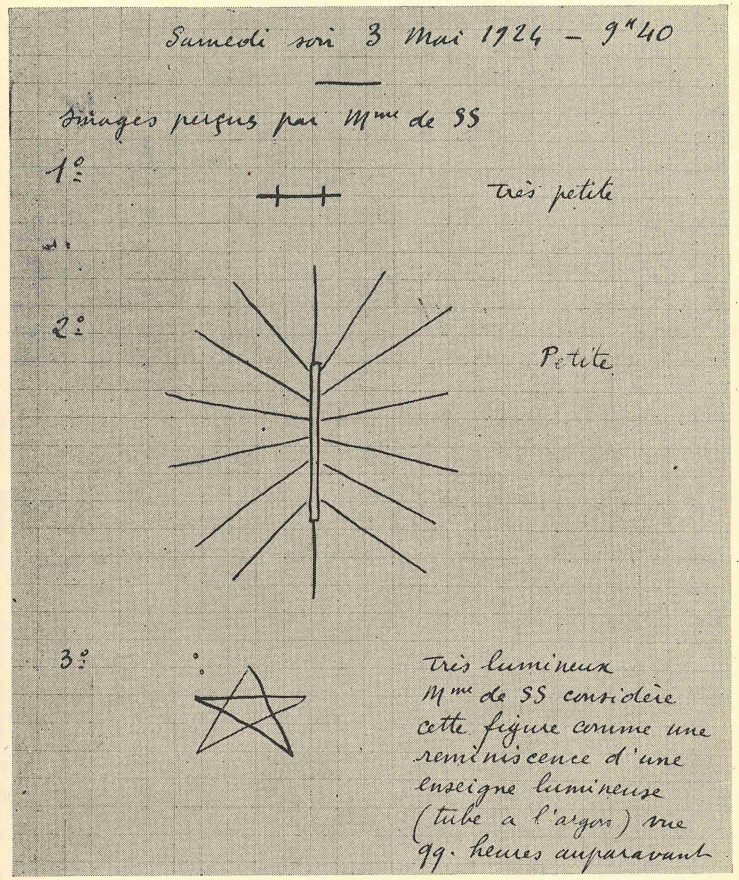


FIG 4. 1 (b)

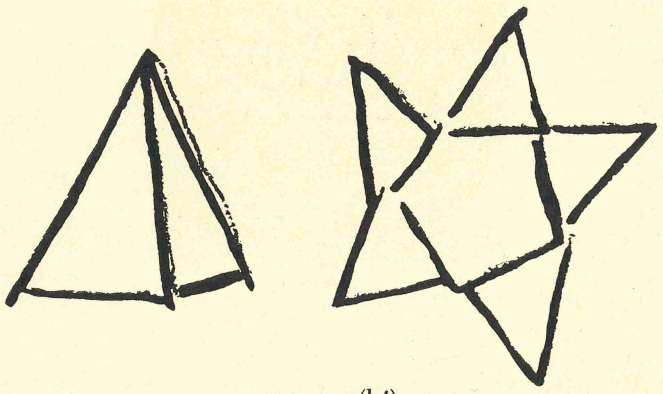


FIG. 4. 1 (b′)

The circumstances of the experiment were wholly unusual. I was giving a talk in Boston on psychical research. At the moment of the experiment, the whole audience—about 160 persons—was asked to think of that sentence for 90 seconds, beginning at 4:30 P. M. (9:30 in Paris), and to help in sending it to Paris.

Here, in Paris, three percipients of our group obtained curious coincidences. P. L. wrote down two sentences:

1. "Love one another" [doubtless with a memory of our experiment with Genesis.]
2. "To die, to sleep, to dream, Hamlet, with an accompaniment of the memory of the scene on the platform at Elsinore."

He was surprised at the disagreement between the two perceptions, for he knew that the words "to die, to sleep, to dream, perhaps" were in the third act of *Hamlet* and not in the first where the scene on the platform takes place. P. L. knows only ten quotations in English, including this one; but there was nothing to prove that the sentence chosen by the American group would be taken from an English author.

Mlle. S. L. wrote three sentences, of which one — the last — is curious: "Life is an apprenticeship, to fame or sorrow."

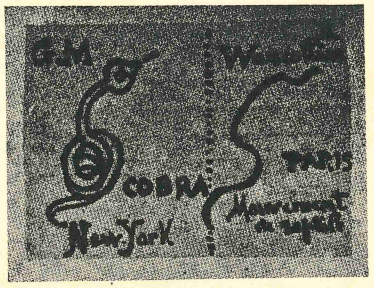


FIG. 4. 2

R. W. perceived the image of a sword in the form of a cross, with the idea of a cold, sharp blade.

III. *May 3, 1924. New York-Paris.*

Subject determined: a diagram.

Conditions: two agents in New York, two in Boston.

See Figure 1. (Note the mental contagion between the percipients in Paris: S. L. — de S. S. — P. L.)

IV. *May 10, 1924. New York-Paris.*

Subject determined: image of an object.

The American group chose and sent the image and the idea of a cobra, coiled and hissing. See Figure 2.

At the hour fixed (9:30 P.M.), R. W. got the idea of the movement of a reptile, and drew it; but he put aside the image because it gave a disagreeable impression. The association of ideas which followed is interesting to analyze. R. W. wrote: "Perhaps it is the tail of a bird, with long blue feathers; a kind of hedge or arbor, with climbing plants like convolvulus, with tropical birds."

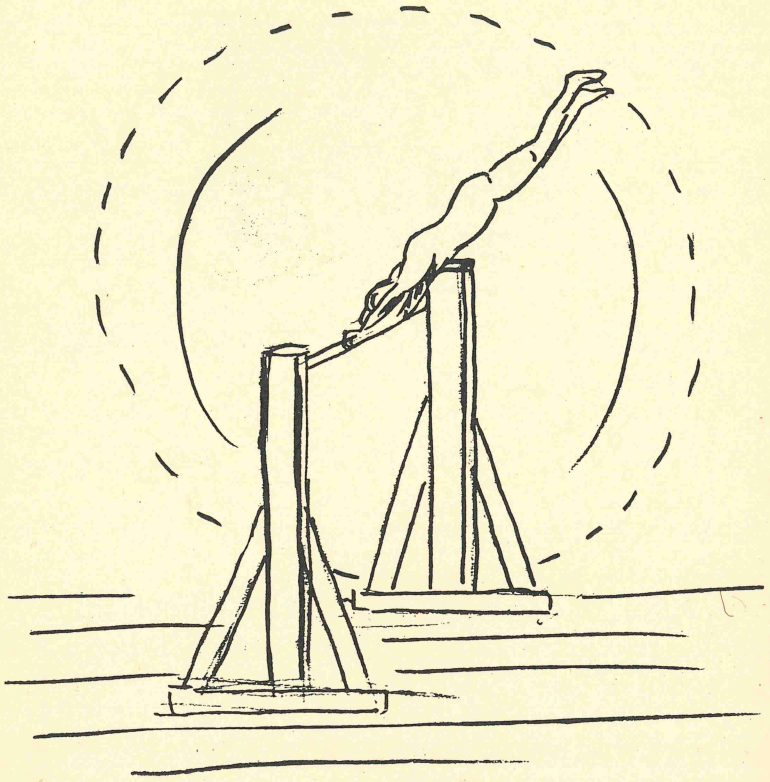


FIG 4. 3 (a)

V. *January 12, 1924. Paris-New York.*

Message undetermined.

Three agents in Paris met to choose a message. Then at 9:30 P.M., the hour fixed, each being alone, they thought of an acrobat turning around a fixed bar, doing the "giant swing." One of them drew it. See Figure 3 (a).

R. W., whom the New York group believed to be the principal agent, had preferred not to know what message

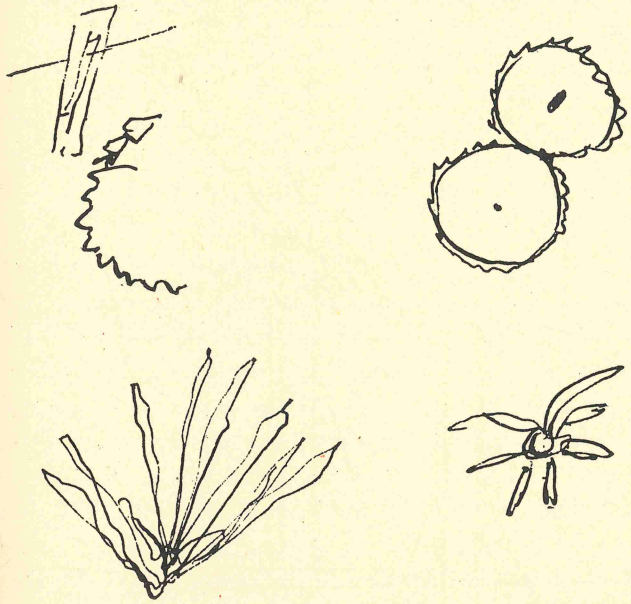


FIG. 4. 3 (b)

was being sent, and for the purposes of experiment was acting passively as percipient. Here are his notes made immediately after the experiment. See Figure 4 (b):

1. "Impression of something metallic, as if aluminum-coated—there are two parts.
2. "Very clear idea of a circular saw, then of cog wheels beginning to turn. Impression of movement. It is very clear.
3. "Idea of white coil seeming to be dragged by the current of air from a ventilator.
4. "Sort of anemone, marine plant, bright green, opening and closing its tentacles." [This does not mean anything; it is a dream-like distortion of the third image.]

There were six percipients in New York. Only H. H. got the idea of rotation. One may say that R. W., as percipient in Paris, received the idea of rotation, dramatized in various images, while H. H., in New York, had the same idea, but that all this does not go beyond the possibilities of chance coincidence. It is otherwise with the case which follows.

At this time the messages were being sent from Paris only once in a fortnight, and the following experiment took place Saturday, January 26, at 9:30 P.M. The letter containing the account of the experiment of January 12, addressed by me to G. M., gave, as subject of the message decided upon for January 26, a number having three digits. G. M. had not received that letter at the time of the experiment of January 26. He had not told his group that there was any question on that day about a number with three digits, or that the preceding message had been concerned with rotation. This was very definitely established by an extremely careful correspondence. My letter of January 12 did not reach G. M. until January 29.

What all the percipients in New York received on January 26 at 4:30 o'clock New York Time (9:30 Paris time) was the movement of rotation of the preceding experiment. From the psychological point of view, this feeling – back to a time a fortnight earlier – succeeded the moment in which the same states of consciousness had been brought about for the second time.

H., the person who had gotten the idea of rotation on January 12, said, "A whirling wheel, memory of impression received two weeks ago, a sort of wheel with large blades like a little mill wheel."

D. C. Had sensations, auditive, tactile and olfactory, all false; he had also one visual impression – of rotation.

FIG. 4. 4 (b)

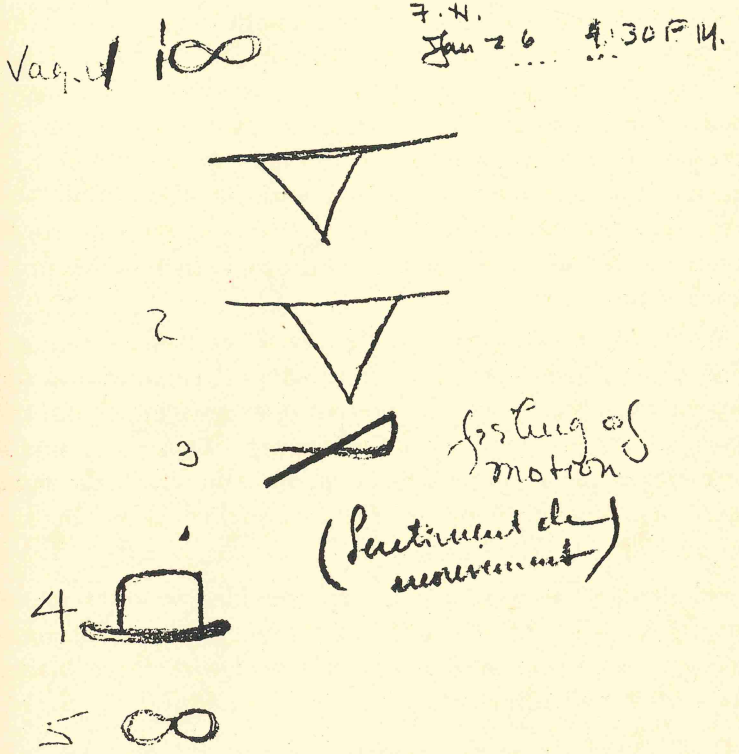


FIG. 4. 4 (b′)

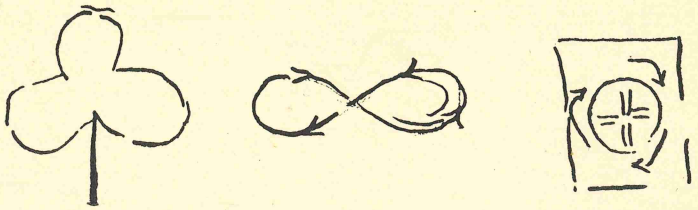


FIG. 4. 4 (b'')

F. G. received five images, of which the second was notable. See Figure 4 (b).

P. M. had five images, of which the third gave him a "feeling of motion." See Figure 4 (b').

Mrs. R. M. C. had three images, of which the second and third are typical. She was in a tea room. "Good concentration. Impression of something turning. Movement of a wheel turning like an enormous mill wheel. I see the room where you are, a wheel turning against a white background." See Figure 4 (b'').

Note that Mrs. R. M. C. had visited me in Paris.

G. M., like myself, finds interesting this type of success by latency, and also the phenomenon of mental contagion between the percipients.

VI. *January 24, 1925. New York-Paris*

Message undetermined.

Eleven agents in New York looked at a drawing, chosen as having no meaning for them. See Figure 5 (a).

In Paris, of ten percipients, three made drawings having some likeness to G. M.'s diagram. Observe the fine case of

FIG. 4. 5 (a)

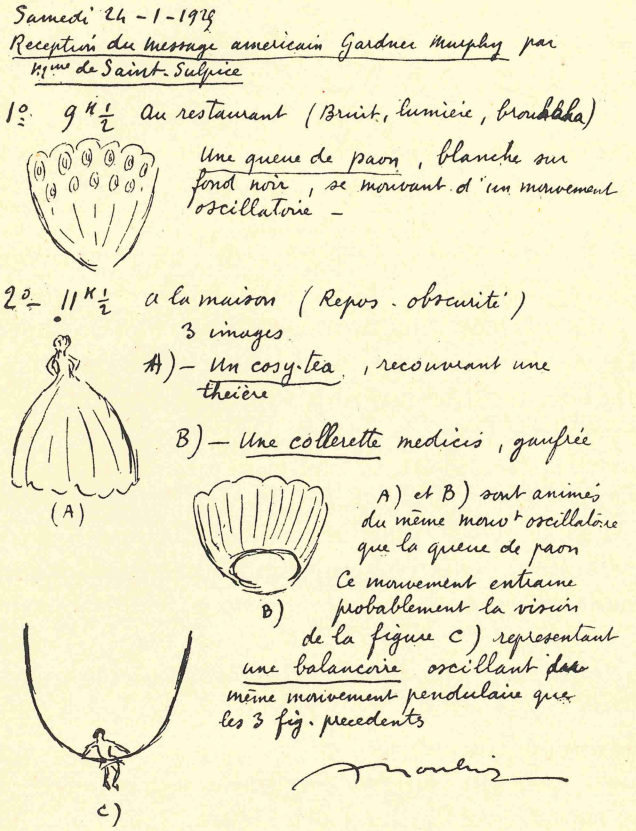


FIG. 4. 5 (b)

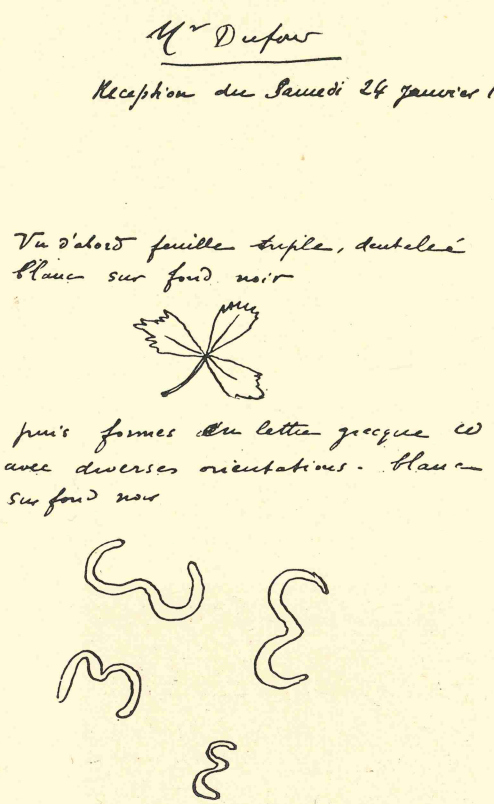


FIG. 4. 5 (b′)

mental contagion between two of the French percipients, working in two different quarters of Paris. Figure 5 (b, b′ and b″).

FIG. 4. 5 (b″)

VII. *March 13, 1925. Paris-New York.*

Case of the stag's horn. See pp. 25-28.

VIII. *March 21, 1925. New York-Paris.*

Undetermined message.

It had been agreed with G. M. that he would send us a dozen pieces of blank paper associated in his thought and in that of his group with a predetermined message, the message to be received under the customary conditions on March 21, 1925. We received the papers on March 7.

FIG. 4. 6 (a) FIG. 4. 6 (b)

The message chosen by the American group was a conventionalized drawing of a Christmas tree. P. L. seems to have gotten both the image and the idea of the message. See Figure 6.

Conclusions

The coincidences which we have assembled and which we (G. M. and I) consider telepathic successes have not perhaps seemed particularly striking, in the absence of detailed statistics. The fact is that our series of long-distance experiments cannot be judged by itself.

With my friends at the *Institut,* and people recruited in friendly fashion by Dr. Osty, we are patiently continuing the same sort of research; we obtain the same results at all distances.

The reader will grant that if I still continue to push on toward the goal, at least I do not see it flying before me. If a dozen friends, whose time, like mine, is valuable, have for years shut themselves up once a week in the laboratory of the *Institut,* it is not solely for friendship's sake but because — with the same scientific spirit — they have, as I myself do, a feeling of encouragment.

Only after going over all the reports will the reader be able to form a fair opinion, favorable or unfavorable, concerning the facts which we present.

Our interpretation of the coincidences obtained — as phenomena of latency, of retarded perception, of mental contagion between percipients — continues to be justified, at whatever distance. We get the same successes by approximation, by association, at a few kilometers as at 6,000 kilometers; there is also the same uncertainty as to results as appears in artistic or scientific inspiration. I see no reason to believe that coincidences between Paris and America have any other origin than do those obtained here.

For those who see in our research only a sort of game of chance, and not a very restful one at that, we observe that

these coincidences obey laws which are not simply the laws of chance. It is always the same persons who succeed; there are agents with whom the percentage of coincidences increases; there are telepathic couples who show more than their share of coincidences.

The future will show whether we are ridiculous collectors of chance coincidences, or whether, as persistent seekers, we are approaching the discovery of a new law of human thought, that is, of a new factor of creative imagination — telepathic influence.

CHAPTER V

Telepathic Accord

THE INVESTIGATION of the conditions favorable to telepathy, spontaneous or provoked, is one of the most important chapters of our study. We can proceed only by classifying many cases, and the complexity of the cases involved appears to indicate that simple classification into spontaneous and provoked telepathy is too crude.

In some cases the thought of the agent is transmitted to a percipient without warning. When this takes place involuntarily, as is generally the case, the telepathy is spontaneous. When it is voluntary on the part of the agent, when the agent attempts to send a message, telepathy may be called experimental for the agent and spontaneous for the percipient, provided, of course, that the percipient is unaware of the agent's intention. I shall cite a typical case of this type.

Dr. B. had an estate in Onival. The estate was eight kilometers from the nearest station, and the distance could be traversed only by walking. One evening as Dr. B. was leaving his estate with some friends, his wife accompanied him for one kilometer, and then hurried home. There she found on the table the key to her husband's laboratory. She said to herself, "I am going to see whether Richet's telepathy is workable." (She did not know that Richet did not believe in tele-

pathy as such.) She placed her head on her arms and pictured to herself the path between the estate and the station. She believed that her husband had been able, by this time, to walk seven kilometers. She imagined that he was at the crossroads, where there was a lone poplar tree. She concentrated upon repeating, twenty times, the following: "Think of your key, think of your key. . . ." Then she retired. Some hours later her husband returned, saying, "I forgot my key."

"Where did you remember?"

"When passing by the poplar. While talking to my friend, I said to myself, 'Hold on, my keys.' "

"Did you think of me?"

"No, of my key."

At first sight, the supreme requisite for telepathic transmission would seem to be sympathy. It is known that in almost all spontaneous cases, the agent and percipient are united by bonds of relationship or friendship. The importance of sympathy has also been established in our own work. It is not necessary to conclude, however, that it is indispensable. Uncongenial persons *may* be in telepathic *rapport,* as is shown in the case of de Musset.

The poet, in passing with some friends through a wicket at the Louvre, heard the words, "I have been murdered at the corner of the rue Chabanais." His friends laughed when he told them, but he was frightened. They decided to go there. De Musset continued to hear the call. At the corner of the rue Chabanais they found a stretcher upon which was a wounded man who had just died. He was altogether unknown to them.[1]

My opinion is that antipathy provokes telepathic phenomena more frequently than does indifference. Here is an unpublished case which I have at first hand:

[1] *Annales des sciences psychiques,* 1899, p. 95.

Mme. Lefevre, who had formerly been a postmistress in the provinces, dreamed that she saw from her office window a certain Mme. R., not a very amiable character, quite a mischief-maker indeed, leaving the station, dressed in black, and advancing very rapidly in Mme. Lefevre's direction. In her dream, Mme. Lefevre laughed at her. One of the first dispatches of the next day, which she received from Paris, informed her of the death of Mme. R. A visit from the son-in-law of the deceased, some time later, confirmed the fact that in the hours which preceded her death, Mme. R., in demanding with insistence the presence of her children, repeated, "You must send a wire."

Thus, paradoxically, sympathy and antipathy both seem to favor telepathic transmission. The uncertainty which naturally arises upon consideration of such paradoxical discoveries is found in everything that bears upon the manner of telepathic transmission. Sometimes the percipient appears to be influenced by only one person, to the exclusion of all others, as are certain hypnotized subjects; and sometimes many percipients are impressed at the same time by the message of one agent. Telepathic phenomena appear to be sometimes directed, sometimes haphazard. We must conclude, therefore, that a large number of factors are involved. Among them sympathy must certainly be counted, but telepathic accord does not depend exclusively upon this. It is the study of some other factors which I shall now undertake.

I

We have established the fact that the sole factor of being together in the same room, or of having recently been together, suffices to put many people in accord. This phenomenon of spontaneous telepathic accord is frequently realized in spirit séances, in churches, concert halls, theaters, conferences, public gatherings, and between persons living together in the same house, in the same locality, in the same country. It is possible to state the phenomenon thus: When several persons perceive the same object, there may be telepathic accord among them. As a corollary: When several percipients think together of the same agent, they may be in telepathic accord themselves. Some striking instances of this follow.

October 23, 1926. Q., percipient, de Sainville, agent. The agent had an idea which he drew. On October 30, when he was again to make a similar experiment with the same percipient, he remembered that image, but rejected it. Mlle. T., who had not been present on October 23 and was totally unaware of the diagram, then made a drawing which was strikingly similar to the "rejected" image of the agent.

On July 2, 1927, Captain B. and Mlle. T. were both percipients in an experiment in which de Sainville acted as agent. The agent decided that the message should consist of three parts – some letters of the alphabet, a picture, and a word. Captain B. wrote, "INRI, boat on a river, DIEU." Mlle. T. wrote, "INR, an andiron, Christ or Christopher." But a year before, on July 25, 1926, Captain B. had sent a message to another percipient, R. W., which was concerned with an excursion on a boat on the Lake of Annecy, and was *associated subconsciously in the mind of Captain B. with the idea of an andiron;* although he had no conscious recollection of it, the percipient of the previous experiment, R. W., had a vague memory of it, which was confirmed by documentary proof.

These cases of "mental contagion" between percipients should be distinguished from the phenomena of collective telepathy in *rapport* with the message of the agent, as evidenced in the experiment of March 5, 1927. In this experi-

ment R. W. was the agent. He read the same passage several times from a book. The percipients had the idea that the object of the message was a book, or, more exactly, one of them (S.) perceived and drew it; the others, while executing similar drawings, were led astray by it. One percipient made a diagram which incorporated some of the lines of the drawing made by S., and another had the idea of a kind of double calendar.

Belief in spontaneous accord is not new, for the magnetizers established the doctrine many years ago. According to Carl du Prel:[2] "The hypnotic subjects of the same magnetizer achieve a state of *rapport* in many cases. Dr. Tarde once paralyzed the hand of a subject in order to anesthetize it. A needle was then forced into her finger, and the point reached the bone. At the moment when he forcibly pricked the finger, another subject, who was sleeping in the next room, cried out, and complained of strong pain in the corresponding finger."

When several persons perceive different objects having some similarity, they may be able to establish telepathic accord. The following is a case of this type.

At the meeting on December 12, 1925, de Sainville was in one room and Mlle. T. was in another. Each looked at a crystal ball. De Sainville described a black mask with two phosphorescent eyes. Mlle. T. described a human skull, in which the eyes were phosphorescent.

In general, when several people receive identical, though distinct, sensations, telepathic accord is achieved with one another. I cite a typical case.

Mr. Marks, during a summer storm, entered his house and went to sleep. He had a nightmare in which he saw his

[2] Du Prel, *La magie, science naturelle,* Leymarie, p. 141.

brother in a boat, overtaken by a storm and saved by a rescue boat. This actually did occur at that hour, 200 kilometers distant.[3]

Carl du Prel[4] says, "One hypnotic subject who suffered from violent headaches had knowledge, during periods of sleep, of persons, sometimes distant and altogether unknown to her, who were suffering identical headaches."

Accord as a result of similar sensations has been indicated to me by several correspondents, and Bonnet foresees the use, by our own group, of sensations of taste and smell. We have already attempted to utilize common musical sensations. However weak these sensations may be, they serve as inductors to associations of ideas in *rapport* with the piece played and the instruments used, for the imagination is always at work.

When many people have the same preoccupations, the same aspirations, telepathic accord among them is possible. Often, in our group, we perceive the arrival of one of the members who has been absent for several meetings. By virtue of long association, we find ourselves all more or less in accord. As an example of such accord between our members, the following case is given:

On November 27, 1926, from 5:30 to 5:45 P.M., in the course of an experiment with Mr. Westerman, of Nancy, not a member of our group, I perceived a person seated, legs dangling over an earthen roof. That was not the object of Mr. Westerman's message, but was exactly what *de Sainville* had prepared, in Loiret, in preparation for an experiment at 6:00.

On January 22, 1927, from 6:00 to 6:15 P.M. de Sainville,

[3] *A.S.P.,* 1892, p. 235.

[4] *Op. cit.,* p. 33.

in Loiret, sent to our group at the *Institut* the image of an elephant, and at 6:30 again thought of the message. No percipient received it, but during an experiment at the *Institut* at 6:40, two percipients received the idea of the elephant, instead of the selected message.

Thus the will of the percipient does not always appear to play a great rôle. We have, however, attempted to induce artificially that accord which sometimes arises spontaneously, by orienting agent and percipient on a precise, common mental image. On February 19, 1927, it was planned that A. should think of an object for a message, and that he should imagine that object as if it were behind a black curtain which was to be drawn aside. He thought of a black curtain, drawn aside, revealing jets of water which formed a sheaf, lighted by an oblique ray of sunshine, making a rainbow appear in the mist. Each percipient, having already in mind the image of the black curtain, put on paper what his imagination caused him to see at the moment. Some of the percipients appeared to have been in accord with A.

On November 19, 1927, it was agreed that the entire group should concentrate upon the same mental image, and imagine a cord being tied into a knot. But R. W., who was to serve as agent, was to be in a room apart, in which de Sainville was to give him a verbal suggestion when he should be in full concentration. The intention was to provoke a *parasitic* image which should influence percipients who were in accord. When R. W. was concentrating upon the common image of the cord being tied into a knot, de Sainville said to him, "A pheasant slowly crosses a path in the woods." When the word "pheasant" was pronounced, R. W., concentrating on the idea of the cord, found himself distracted by that mental exercise, and thus an emotional conflict was produced, for R. W. had attended a fortnight previously a presentation of

Chantecler. Instantly an image of the golden pheasant was evoked, but R. W. put that thought aside and took up again the mental exercise of the cord and knot. One of the percipients at the *Institut* perceived at that moment a cock, then a pheasant, which he noticed in particular; then a duck; and finally, the general idea of a farmyard, a scene similar to the one in which, in *Chantecler,* the golden pheasant makes its entrance.

Unfortunately, mental images, like sensations, provoke associated ideas which are troublesome to telepathic perception. We were forced to abandon the method just considered, and again relied upon our own spontaneous accord. This served our purpose well, since we received, at various times, messages from persons unknown to us, who were in accord with our group through common interest in this type of investigation. Thus, in telepathic transmission, it is a question not of acquaintanceship, but of accord.

II

Activity of the Percipient on the Agent

When, accidentally, the minds of two persons are brought into accord, spontaneous telepathic communication is possible, and frequently occurs. Let us consider the rôle of the percipient in such a case.

A large number of experiments have convinced us that the agent is not always very important, but that his action is not entirely negligible. Usually, the phenomena of an experiment indicate that the percipient plays the principal rôle. But how may we demonstrate the importance of the percipient? It is an arduous task. A typical difficulty is that, when a percipient knows that he is working with many familiar

agents, he can no longer guide his conscious and subconscious activity, and most frequently obtains no favorable results.

An agent, on the contrary, working with many percipients, can try to influence one of them to the exclusion of the others; but in this case also success is generally limited. And sometimes the entire group receives images not intended for transmission. Apparently it is the will of the percipient alone that is effective in making telepathic transmission possible – that is, in the majority of cases, for we must not forget the cases in which the part played by the agent is unquestionable. We must emphasize the definite liberty of choice among the multiple impressions which assail the percipient. In the experiments cited below, in which we attempted to transmit impressions from different senses, there was no conscious direction of the agent to a determined percipient. The agent was satisfied to think only of the sensation.

A. *Transmission of Posture (or Idea of Posture).*

A., the agent, fixed his thought upon the "Génie de la Bastille." One of the percipients wrote, "The right hand in the air with two fingers raised, the right foot lifted up; looking at the sky" – a fairly accurate description of the object which the agent had in mind.

B. *Transmission of Cutaneous Impressions.*

On February 5, 1927, R. W., acting as agent in the office of the *Institut,* pricked his hand with a pin. Mlle. T., in the laboratory, drew an iron rail fence, and had the idea of picks, a "kind of Indian instrument."[5]

On February 12, 1927, R. W. placed in the hand of L., in

[5] The arrows in her drawing were similar to the points upon which the Hindu ascetic lies.

the dark, a loop of wire. That tactile sensation evoked in him various visual images. Mrs. D., an American percipient, wrote automatically, "look this," and drew a pair of spectacles.

C. *Transmission of Auditory Impressions.*

On May 7, 1927, Mlle. B. played on a harmonium the Rakoczy March of Berlioz. The percipient, Du., in a distant room in which it was not possible to hear what was played, noted, "Rakoczy March."

Naturally, the possibility of hyperesthesia must be considered in these cases involving the transmission of sounds.

D. *Transmission of Visual Impressions.*

B. projected upon a screen a slide representing a street, at the end of which, in the distance, could be distinguished some ship masts. Many percipients received some details of the image, particularly R. W., who wrote, "B. is looking at a collection of beams," and drew two masts identical with those on the slide.

On December 3, 1927, L. and De. were agents at the same time, but for different messages. There were four percipients. R. W. decided to direct his attention only upon L. L. chose as his message a boot, right foot, which he drew; see Figure 1 (a). De. chose as his message a ten-kilogram weight, which he took in his hand. R. W., among the percipients in another room, received at first the idea of the shadow of a footprint upon a light blue cloth. He drew a sole of a shoe, as shown in Figure 1 (b). Then he saw it blow itself up and swell as if a foot were underneath. A woman's blue satin boot, also shown in Figure 1 (b), formed itself from this image. The idea of a ten-kilogram weight was not perceived. This example illustrates perfectly our theory that the direction of the

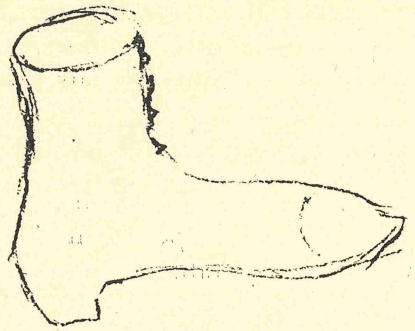


FIG. 5. 1 (a)

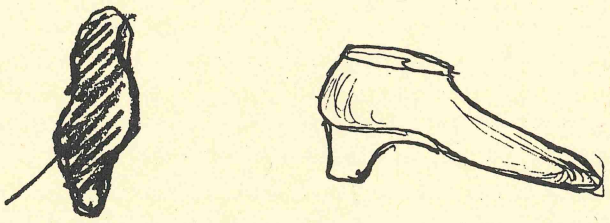


FIG. 5. 1 (b)

agent's thought does not seem important or useful, whereas that of the percipient is necessary. We shall see now whether the activity of agents, from the point of view of direction, is useful.

III

The Activity of the Agent on the Percipient

Activity of the agent appears obvious in spontaneous cases. Cases of voluntary appeal by an agent, such as that of the forgotten key cited previously, are so numerous that it appears impossible to deny them. In what, then, does the activity of the agent consist? First, he must wish to send a telepathic

message. Then he must wish to *direct* it. One of our group, de Sainville, limited his work to voluntary appeal, starting from the hypothesis of directed telepathy. Intentionally, in the experiments in which I act as agent, I have often assumed the opposite hypothesis, which has not kept me from obtaining striking and numerous results, particularly with de Sainville as percipient. But we cannot exhaust this subject in one chapter. When certain accustomed agents have directed their activity upon a percipient, they have felt that the attempt was successful. This we shall call "two-way action." This is the exact counterpart of what should take place with trained percipients. Actually, we have not acquired, at least as agents, the precious faculty of positively knowing the success of voluntary direction of telepathic activity.

I think that it will be interesting and useful to present here our complete series of ten summer experiments, during which de Sainville, as agent, attempted to direct his thoughts toward me exclusively, although in our group experiments we generally work with several percipients. During our vacations de Sainville and I have been able to study the question at more leisure. Upon returning to the Pyrenees in 1927, the region which had brought us so much success in 1926, I attempted some analogous experiments, since I found myself again in a similar condition of intellectual repose. It seemed to us that the results obtained were at least as encouraging as the former ones. In order that we may not be the only judges of them, I am going to present the failures as well as the successes of that series of experiments. The series was performed between July 20 and August 31, 1927.

First Experiment, July 20.

De Sainville, as agent, was at his home in Courbes-Vaux,

Loiret. The message was sent as follows:

(1) 7:30-7:38 P.M. – The Letter O.

(2) 7:40-7.45 – The image of two glass globes filled with stuffed birds, placed on a little tree.

(3) 7:45 – "The birds fly and are whirling around your head."

(4) 7:50-8:00 – The word "bird."

R. W., at Lourdes, received five images between 7:30 and 7:45. Only the third corresponded to the message sent by de Sainville. The others were due to visual memory-images of the journey. The third image, received at approximately 7:40, was of a white bird, like a sea gull, having the head of de Sainville, wheeling on the left wing while alighting near R. W.

Second Experiment, July 23.

Message sent:

(1) 7:30-7:38 – The letter W.

(2) 7:38 – The thought of a horsehair glove placed on a bottle.

(3) 7:42 – Drawing of (2) above.

(4) 7:42-7:45 – Idea of gymnastic activity, hygiene, health, hair.

Message received, 7:30-7:45:

(1) Hairy brown arm of a man, digging the earth, the arm turned downward, the hand quite visible, the forearm very shaggy.

(2) A brown man moving backward, as on a trapeze.

(3) Child doing gymnastic exercises, seizing parallel bars with both hands.

(4) Cabin boys or sailors wearing caps with red pompons, leaping from one platform to another.

(5) The idea of movement, effected by man, not by mechanical means.

Third Experiment, July 27.

Message sent:

(1) 7:30-7:40 – The letter B.

(2) 7:40-7:45 – Execution of drawing [not illustrated], idea of geometry.

Message received:

(1) The letter M.

(2) Indistinct colors.

(3) Buttress of masonry supporting a wall. A very high pile of stone supporting a metal framework, at least fifty meters high.

(4) Picture of a man with tousled hair, large brilliant eyes. He is like a "four-footed beast," but holds his head high.

At 7:45 R. W. recognized in the vision the image of the medium Marjan Gruzwewski, who was at that time at de Sainville's house.

Fourth Experiment, July 30.

Message sent:

(1) 7:30-7:40 – The letter G.

(2) 7:40-7:50 – Drawing of a cock.

(3) 7:50-8:00 – The word "Cocorico."

Message received:

Total failure. I received three false images, with the impression of failing to make contact with de Sainville.

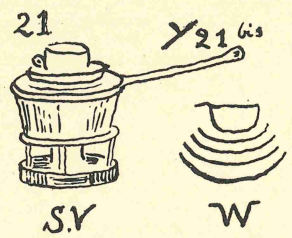


FIG. 5. 2 (a)

FIG. 5. 2 (b)

Fifth Experiment, August 3.

Message sent:

(1) 7:30-7:36 — The letter O.

(2) 7:36-7:54 — Drawing of blocks of chocolate; the odor of chocolate.

Message received:

(1) *ac ic.*

(2) A trellis.

(3) The word "acid."

Sixth Experiment, August 17.

Message sent:

(1) 1:15-1:24 A.M. — The drawing shown in Figure 2 (a).

(2) 1:25-1.26 — The Letter R.

(3) 1:26-1:30 — A flame of burning alcohol.

Message received:

[In this experiment I was in the home of de Sainville, but not in the same room with the agent.]

(1) A saddle.

(2) A rainbow, colored like oil on water.

(3) A basin, like a shell soap-dish I had just seen, but of white metal.

(4) Bowls inside one another, the top part having the aspect of a cuff containing a handkerchief that had been rolled up in the hand. The whole presented the appearance shown in Figure 2 (b).

(5) Frame of a painting.

Seventh Experiment, August 10.

The hour agreed upon was 7:30 P.M. I was delayed, and from 11:10 to 11:15 I tried in vain to recover the message.

Eighth Experiment, August 13.

Message sent:

(1) 7:30-7:40 — Agent delayed, no message sent.

(2) 7:40-8:00 — The impression of something heard on the radio, the "Montmartians Song."

Message received:

(1) The letter Z.

(2) Magnifying glass.

(3) Two hands applauding.

(4) A plant.

(5) The word "gas."

Ninth Experiment, August 24.

Message sent:

(1) 7:30-7:40 — The letter D.

(2) 7:40-7:45 — A drawing of a dancer. [Quotation from de Sainville's letter: "I wanted to take a subject with which I was saturated, the picture of the Turkestan dancers, which you must know. It was frightfully torn. I was in the course of restoring it. I had worked on it for two hours. I drew the outline of the dancer on the right of the picture in red

chalk, at first making her nude, and then dressed her in a transparent blue garment of stippled ink. For the moment, I directed my thought toward my sister in Brittany, who was trying, I believe, to receive at the same time. For her, I had made at 7:45 the sketch of the dancer without draperies. I had shaped the headdressing carefully, a little to one side, in order to have a rather exact image."]

Message received:

(1) A coat rack, a window.

(2) Bare shoulders.

(3) Unusual tint of color, made from dregs of wine taken from the wine cask.

(4) A cap, a white headdress, a gilt mantle on a doll's head, the image very sharp.

Tenth Experiment, August 31.

Message sent:

(1) 7:30-7.35 — The letter P.

(2) 7:35-7:40 — A heap of dung, a young boy with a pinafore full of grass, a peasant carrying a metal ring separating two pails.

(3) 7:40-7:55 — Rough sketch of the peasant cited above.

(4) 7:55 — Idea of evening on a farm.

Message received:

(1) The figure 5.

(2) Metal rings and hooks.

(3) Head of an unknown man, with a short moustache, chestnut hair, rather long than short, and frank features and a gay face.

(4) The previous image displaced by the image of my own head.

(5) A sheaf of hay, a tied bundle of hay.

(6) Branch of a pine, and yellow flowers.

It would be well to make some observations about these ten experiments. I shall confine myself to a summary. First, the number of successes was about five — the bird, the gymnast, the idea of kitchen utensils piled up, the doll's headdress, and the peasant. Of the others, one was not carried out by me at the fixed hour, and another was not started by de Sainville at the agreed time.

The position of the percipient was always the same, one of reclining in semi-darkness. It is to be noted that de Sainville tried each time to send a letter of the alphabet and a word, and that there were no successes with this material, probably because the percipient, having been informed of this plan, attempted to guess. And finally, it appeared to us that, along with the *form,* the *idea* was transmitted with greater facility than were the messages of the previous year.

Conclusions

Is it possible to state that our results offered proof of directed telepathy? What would be that direction? It is not always spatial, since sometimes the agent and percipient do not know each other's exact location in space. Certainly some spatial psychical phenomena exist, but I do not think that they are of precisely the same nature as those with which we are now concerned.

Personally, I doubt the possibility of direction of thought. We do know that the attention of the agent must be directed outside of his normal consciousness. And the same is true of the attention of the percipient. They "go," so to speak, to meet each other in the psychic realm. It would be possible to suppose, therefore, that there is neither emission nor recep-

tion, but, rather, the contact of the two at a common center. But in using the term "direction of attention" we seem to leave the world of space for a domain purely psychological, that of time. These two distinct worlds, however, appear to me to be superposable in some way. It is possible to obtain good telepathic results by knowing the location of the percipient or agent in space; but we achieve the same results if the spatial location is not known, provided that the agent or percipient is known to us, or if we are in accord with him *at that moment.*

The phenomena of mental contagion between percipients, the fact that we do not distinguish the source of a message when there are many agents, the phenomena of spontaneous accord, and the fact of latency all appear to me explicable by the hypothesis of a psychic world in which everyone takes part. Thus the problem of *direction* loses its importance, and the question becomes one of *meeting* in the psychic realm.

And how do these meetings occur? There should be, in the case of the agent, a sort of psychic illumination, a psychic *charge,* if one prefers. This luminosity of thought, which might perhaps guide the percipient to the agent, would almost always be unconscious, although it might well be provoked voluntarily by certain practices or by trained psychics. This luminosity of thought would be detected by the percipient, and thus a psychic meeting would be made possible.

The situation, as I see it, has been excellently stated in philosophic terms by Bergson: "The truth is that the point *P,* the rays which it emits, the retina and the nervous elements effected, form a single whole; that the luminous point *P* is a part of this whole; and that it is really in *P,* and not elsewhere, that the image of *P* is formed and perceived." [6]

[6] Bergson, Henri, *Matter and Memory,* Macmillan, 1929, p. 168.

CHAPTER VI

Active and Passive Telepathy

WHAT does this mysterious word "telepathy" conceal? Probably many quite diverse phenomena. We currently use the word "light" to designate white light, consisting of many sorts of monochromatic lights, as well as infra-red and ultra-violet frequencies of radiation, without thinking that it consists of very varied components. We speak of "electricity" without thinking that it includes varied phenomena, static and dynamic. And we believe that there must be many kinds of telepathy. Since the beginning of psychic research, the transmission of thought has been instinctively separated from telepathy.

Thought transmission occurs more frequently at close range, or even with contact. It resembles so-called magnetic influence. We find an analogy to it in the phenomena of electrical induction. It should be still further distinguished from telepathy in that it is favored by the direct influence of the will, and, as such, seems capable of being exercised or projected in a determined direction. Telepathy properly so called, is characterized by action at great distances, action most often involuntary; it has a striking analogy in wireless telegraphy which is transmitted in every direction at one time.

That would be the highest range of the telepathic phenom-

enon, its ultra-violet radiation, to borrow a concept from physical science. Thought transmission would be its "infra-red," more physiological, beginning with ties of blood relationship, and characterized by a degree of "magnetism." It is like influence by physical factors, such as temperature, light, and the state of the atmosphere. It is like a sort of fluid projection, let us say, of the agent upon the percipient, in some manner conditioned by vibrations of the "ether." Telepathy would seem to be more psychological, depending on states not physical, but emotional, such as those of surprise, desire, satisfaction, or opposition. It is a kind of psychic radio-activity, vibration of an "ether" which we do not yet know, less egocentric, reverberating from the depths of ourselves in infinite circles. At its furthermost boundary it might give rise to collective association of ideas, and would probably extend even to the subconscious communion of all living beings in the universe. But it is with the intermediary stage of telepathy that we are concerned at present.

A spontaneous instance described by Mme. Bisson in *Psychica* for May 15, 1923, illustrates in an admirable fashion what our working hypothesis will be, telepathy being considered as a phenomenon analogous to acoustic resonance, residing in a syntonization, a "vibrating with," which may be spontaneous indeed.

Mme. D. had the habit of taking a bath every evening at six o'clock. One day, some minutes after her entrance into the tub, she felt indisposed. A leak in the gas pipe or a poorly closed stop-cock had allowed gas to escape causing the illness. Mme. D. tried to press the call bell. Scarcely had she done so when she felt herself sliding to the bottom of the tub. By the time D. had arrived, she had entirely lost consciousness. She was moved, familiar remedies were applied, and fortunately she was restored to consciousness. When she was able to answer her husband's

questions, he asked her, "Is it true that a drowning person, at the moment of losing consciousness, recalls his past existence to the smallest details, as I have often heard it said?"

Mme. D. answered, "No, not at all; and what surprised me more was that not only did I not recall my past, but I thought neither of you, nor of my daughter, nor of those dear little boys—in short, of none of you who are all my happiness. I saw before me without power to dispel the image, Mme. J. She was near me, looking at me sadly. It was impossible in those few instants to remove her from my eyes and my thoughts." [Mme. J. was only a social acquaintance.]

The evening passed and Mme. D. recovered.

The next morning news came to Mme. D. of the death of Mme. J., who, taking a bath while intoxicated the previous evening at six o'clock, had drowned in the tub before being able to call for help.

When one tuning fork vibrates in unison with another, no phenomenon of consciousness or of will is involved. May we assume that the same thing holds here? These two people were brought by chance into accord. How is it possible, theoretically, to bring two people into accord with each other? By placing them, I believe, in situations in which either the physical, physiological, or moral conditions are similar. From the physical standpoint, the room temperatures and atmospheric conditions should be the same. From the psychical, the same psychological factors, the same sentiments, the same emotions.

These two conditions were realized spontaneously between Mme. J. and Mme. D. in the case just cited. By hypothesis, the emotional note was sent out by Mme. J. in all directions; it was received by Mme. D., who was exactly attuned to it because she was in a similar physical and psychical situation. It is granted that if Mme. D. had not been in *conscious rapport* with Mme. J., if she had not had in her mind a memory-

image of her, she would not have been able to objectify the telepathic message, it would have been lost, as it was for all the other people who became ill in their baths at that hour.

In holding this case before us, we shall see exactly what our hypothesis explains, what it does not explain, and what it cannot pretend to explain without the aid of another hypothesis.

Let us suppose that we are to transmit a geometric image, one chosen from a hundred, by means of an electrical apparatus; for example, the image of a circle, chosen from among triangle, square, rhomboid, pentagon, and other figures. There is at the transmitting station a collection of these hundred images, and of course a similar collection at the receiving station. The selected image is placed properly in our apparatus. We admit that these images are carried electrically. In an apparatus requiring wires, each image is connected by a wire to its counterpart at the receiving station. In an apparatus based on wireless, each image corresponds with an arrangement set for a certain wave length. We find, in this hypothetical situation, nothing extraordinary in the fact that the image of the circle appears in good order at the receiving station.

It would be possible to construct a mechanical apparatus for distant communication, arranged in such a manner that one playing card drawn from a deck displayed in Paris would appear automatically at Lyons, in a receiving apparatus containing a similar deck, without any transmission being made by wire between the two. Why should two brains in accord not vibrate in unison? This hypothesis would explain why telepathic messages are often distorted – they are translated into images already existing in the deep memory of the percipient. It would explain why apparitions are usually dressed in familiar costumes, why phantoms have their hats and canes,

their cigars, their dogs and their mannerisms. This much our hypothesis would explain; but it would not explain the appearance, in the brain of the percipient, of an image which had never been there – the features, for example, of a face which he could not have known. These cases are infinitely rare, but they exist. Let us look for the equivalent of them in wireless.

Today [1924] new processes permit wireless transmission of designs, photographs, handwriting, and the like. Newspaper "wire-photos" are now commonplace. In such processes the points of an image are transmitted successively. This is the usual procedure. And has the word "succession" a meaning in telepathy? It seems so; a strange face does not generally come all at once. All the reserve of the visual images in our memory are drawn upon. Succession causes a nose to appear here, eyes there, in the process of reconstructing the image of the face being transmitted.

Is it possible to transmit electrically, not the points of an image in succession, but all the points at once? Even this is possible, but there is no immediate prospect of such transmission by wireless. It is necessary to recall Maxwell's hypothesis. Would it be possible to project an image by electrical waves without visible light? Perhaps, since Bellini has recently shown that it is possible to concentrate certain very short electrical waves. At the Physics Exposition in the Grand Palais, we admired General Ferrie's apparatus which permits him to direct the waves in the single direction of the receiving apparatus. He employs waves of several meters' length, projected without loss by means of a parabolic mirror, but only for short distances.

Does such a discovery throw new light on the problem of telepathy? At first sight the analogy appears evident. If it is

true that, in some cases, in the infra-red of telepathy (the transmission of thought between a hypnotist and his nearby subject), everything takes place as in the experiment of the transmission of the short waves, it is certainly not the same situation as that in which several distant subjects receive the same message from a single agent, or when, more simply, an agent is far from the percipient. We cannot repeat too often that we cannot say what a "psychic" aim consists of when the subject is not located. We recognize in telepathy only an orientation of the percipient's attention which might make us think that the complex phenomena of telepathy are purely psychological. Here we enter into the realm of the unexplained.

Let us try to come out of this obscurity. We have always considered the percipient as purely passive. He is so, perhaps, in spontaneous telepathy, properly so called; but in experimental telepathy the percipient is not always passive. Great strides have been made in the field of wireless since the receiving station has been made to function with the use of the heterodyne, that is to say, has itself become a station emitting waves which go to meet those sent out by the sending station, thus causing the phenomenon of interference, of conflict, which permits close accord, and consequently great sensitivity. We have reason to believe that the analogy holds in telepathy. The percipient appears even more important than the agent. It is certainly necessary that he be passive in body, but it is useful for him to be active, in some fashion, in mind. He may, perhaps, be compared to a medium producing physical effects, but his emission of energy is perhaps due to an infinitely small cerebral dematerialization, sufficient to produce a psychical energy of great scope. According to whether this state is produced or is totally lacking, the telepathic experiment succeeds well or fails almost entirely. The clear-

ness of reception would depend on the syntonization due to that heterodyne emission. On the other hand, when there is only passivity on the part of the percipient, telepathy is rare, or is disguised by parasitic images.

Let us advance a step further. We shall perhaps find the guiding thread leading us into the greatest mystery – the appearance, by telepathy, of an image not already existing in the brain of the percipient. Let us consider an analogy, fanciful enough perhaps, which may lead to a hypothesis.

In wireless a disconcerting discovery was recently made, that of ultra-sound. Audible sound is composed of vibrations whose frequency is from a few per second up to about fifteen thousand or more. Langevin has discovered an instrument of silent music which emits sounds of 50,000 – 200,000 vibrations per second (the vibration of a sheet of quartz). This apparatus emits ultra-sonorous silent waves. These waves disseminate particularly well in water. They are useful in exploring the depths of the sea. When these waves encounter an obstacle, the vibrations are reflected, and produce in the lighthouse an echo which is translated into electrical waves and amplified by wireless. This makes it possible to detect, simultaneously, the presence of an obstacle and its position. The receiving apparatus can, at the same time, be the emitting station because it is tuned to the proper frequency. The unique aspect of this invention is that, instead of receiving the wave sent out at a distance by the emitting apparatus, it receives the echo of itself.

To transfer the conception to parapsychology, when a clairvoyant subject discovers the body of a drowned person at the bottom of a river, we know that we are in the presence of a phenomenon which is not telepathy, but merely telesthesia. However, the subject discovers not only material objects, but also the states of mind of other persons, and thus the clair-

voyant is frequently a telepathic percipient.

It is therefore possible for us to consider the hypothesis that in telepathy, particularly in experimental telepathy, the percipient might receive the echo of just those psychical waves which he would be sending out himself, reflected by the agent and his thoughts as by a material object.

It must be remembered, of course, that these physical analogies are no more than convenient pictures to represent, one might say symbolically, the marvels of the world of the mind.

CHAPTER VII

Telepathy and Imagination

We are now going to consider the rôle of the imagination in objectifying the images of experimental telepathy. In spontaneous telepathy the message is almost always emotional and affective. It has a peculiar force that one rarely finds in experimental telepathy. Also, in spontaneous telepathy the message is the chief thing and the imagination is accessory, whereas in experimental telepathy the rôles unfortunately are reversed. The imagination is awakened by expectant attention and the desire to see images. The state of passivity in the percipient which favors it is like a dream state, and the will is dormant. The imagination finds its essential elements for images in indistinct sensations, recent memories, and telepathic impacts. As each percipient lives in his own world, it is interesting to see, in working with a group, the different interpretations of the same message, according to the emotional states of the percipients. It is even probable that these affective dispositions — anger, anxiety, joy, grief, etc. — are important in the emergence of the message, that they are the keys to what we have called "psychic affinity."

It is not enough that a message be well sent. It is necessary that the percipient be sensitive to the message at the particular moment of the experiment. We know that our emotional

capacity for reaction to any object is continually changing. In fact, telepathy almost never manifests itself to the percipient by a sense-image or a memory-image of the agent. It seems that the memories or sense perceptions disintegrate into their component elements; and it is from these elements, revived by the percipient, that the creative imagination reconstructs, as well as it can, the perception or the memory-image of the agent.

Abramowski, who studied the telepathic transmission of forgotten words, cites the case of the word *dents* (teeth), which had been suggested. The percipient said that the word began with D, and then wrote: *Oeil; ailes d'un papillon, qui sont dentelées; une dentelle; dent.*[1] (In English, *eye; butterfly wings which are lacy; lace; tooth.*)

Experimental telepathy is, for the percipient, a problem that he turns over for solution to his subconscious, which has at its command all his past sensations. It is by memory and imagination that the problem is solved. Even during the emergence of the message to the percipient's conscious mind, nothing is involved, from the intellectual point of view, but imagination. The will has been voluntarily submerged. We may say that the creative factor, having conscious memories no longer at its disposal since the percipient has made his mind a blank, uses these paranormal interior elements. But he uses them as he habitually uses what his senses provide by the same associative mechanism. On the other hand, since it is impossible to eliminate all that is provided by the senses — by vision, for example — the imagination combines that with paranormal elements, and confused combinations result.

We shall see, while reviewing some unusual telepathic experiences, how the simplest elements manifest themselves by

[1] Abramowski, *Le Subconscient normal*, Alcan, p. 385.

complex association of ideas, through contiguity, resemblance, and contrast. The association of ideas incontestably explains some of the curious instances pointed out by all experimenters. I cite Richet's *Traité de Métapsychique* (p. 237): "Let us notice a very peculiar result. Freudberg had suggested 'Julius Caesar'; Hoffman thought of the bridge at Bonn, where there is a statue of Julius Caesar."

Here we have typical association by contiguity. The process is not rare, and we might consider it typical of most telepathic emergence. It can be explained only by admitting that the words *Julius Caesar* were awakened paranormally in the subconscious of the percipient, and were then unable to emerge into the conscious mind except as an image intimately associated with the words involved. The words *Julius Caesar* were like the forgotten words we try to recall, saying that they are on "the tip of our tongue." And let us remember that latent association is well known among normal persons.

Telepathic imagination has all the characteristics of association of ideas. It is not creative imagination, but, in common with creative imagination, it has suddenness and the feeling of impersonality. It acts in the same manner as genius and instinct, but it does not produce a finished work. When it is creative, when it forms a coherent whole, one may be sure that very little telepathy is occurring. As the subconscious imagination does not feel the curb of reason, it approaches primitive methods of thought much more than does the imagination of rational thinkers who seize upon exact resemblances between images.

Ribot[2] says, "The aborigines of Australia call a book a mollusk, just because it opens and shuts like the valves of a mullusk's shell."

[2] Ribot, Th., *Essai sur l'imagination créatrice*, Alcan, p. 22.

In Experiment 35 (1929), the agent, D., held in his hand a little plan of the Metro, on a sheet of paper folded in the middle and half open. The percipient, Bonnet, saw a bivalve.

I shall quote also from Cramaussel;[3] "The child confuses a three-branch chandelier with a fork; a swan with a giraffe or a camel. He confuses a bird with a fish." (These confusions have often been observed in our experiments.)

Telepathic imagination is unique, for it has no logical limitation whatever, and anything is possible to it. Even mystical imagination is held within narrow limits, whereas telepathic imagination is entirely free from any rein. The good telepath must not reason. However, it sometimes happens that he consciously develops a complex image originating in his imagination. If his reasoning is conscious, this is done at the expense of the accuracy of the message; but if it is subconscious, if it appears absurd to him, he may tell the truth about his perception. Fortunately it is necessary to train oneself for these intellectual acrobatics.

This telepathic reasoning deserves our attention. In the state of passivity, all thought takes the form of images. All conscious thought can present itself in this form with a reality above suspicion. I shall give a personal case. I was awakened from my normal sleep, and found myself in a semi-hypnotic state. A glowing phosphene took the appearance of an electric commutator, which made me think consciously of the installation of an electric motor designed to operate a ventilator. Then it seemed to me that, with the same phosphene, there appeared immediately the elbow of a ventilator funnel. In this instance the conscious mind collaborated with the subconscious, in a state on the borderland of sleep.

Not only a conscious thought, but, most often, an unconscious thought takes the form of an image. In the course of one telepathic gathering, I was told that a person I had invited to dine could not come. I repressed the thought a few minutes later, in order to perform an experiment as percipient. My mind was then absolutely passive and empty of *conscious* thought. The first image, however, which appeared to me was that of a broken plate, a symbol of the news I had just received. The second image was a telepathic success.

[3] Cramaussel, E., *Journal de psychologie*, 1924, p. 161.

Not only conscious and subconscious thoughts, but also internal sensations, may give rise to such symbolic images. Internal sensations after a surgical operation once awakened in my mind symbolic images of crabs' claws, whose disappearance coincided with the definite cessation of intestinal discomfort.

But let us return to the collaboration of the conscious mind with the subconscious in the emergence of a telepathic image. On November 16, 1929, the agent in a telepathic experiment drew a round diagrammatic eye. I was the percipient, and I had the idea of a sea anemone, which made me think consciously of a cuttlefish whose round eye I saw. I suppose that the object of the message, the round eye, had arrived in my subconscious, and that it was first associated with the idea of a cuttlefish. This idea, not having been able to emerge into consciousness, had associated itself with the idea of a sea anemone, and thus found the path of least resistance. Thus the conscious was able to collaborate usefully in the emergence of the eye because the subconscious had laid out the path for the associations to follow.

To study the telepathic imagination at work, we are going to make it work on more and more complex messages. We shall proceed from the simple to the complex. To begin with, I shall use the simplest message that I have been able to find — a black print on a white background. I looked at this point

through a cardboard tube in such a way that it appeared eccentric. What effect did this produce upon the three percipients? Needless to say, the percipients were not informed of the simplicity of the message. In none of our experiments were the percipients in the same room with the agent, nor were any of them ever in the same room. We shall establish the fact that a message, quite free from any emotion, emerged in the conscious of the percipients by virtue of the emotion that they were able to associate with it.

The first percipient, Mlle. B., a sister of a chemical engineer, saw a black point out of center, which she associated with a laboratory balloon. The second, a sculptor, associated it with the eye of an owl. The third, Bonnet, a poet and philosopher, also associated it with the eye of an owl, exhibiting perhaps the phenomenon of mental contagion between percipients. He reconsidered it and this time thought of the full moon rising above the sea — an association of ideas. Another percipient so distorted the message that it takes courage to cite it. The black point in a circle became a man descending by a rope to the depths of a ravine. I remind you that I looked at the black point through a cardboard tube. This percipient is an artist, a professional designer, whose conscious imagination is very facile.

Let us look at this same percipient at work in another experiment, also very simple. I gave him a white paper with a black spot in the center and asked him to fixate attention upon it. In another room, I did the same with a similar spot; I had drawn three white lines within the spot, as shown in Figure 1 (a). This was the message. The percipient also drew three lines, then added others, as shown in Figure 1 (b), and wrote, "The blot is growing luminous, and shines like a lighthouse."

In another experiment, R. D., as agent, suspended a stamp

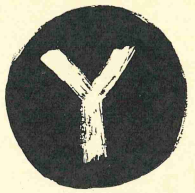


FIG. 7. 1 (a)

FIG. 7. 1 (b)

picture by a twisted cord, wound so as to make it rotate. The same percipient cited in the previous two experiments drew a sort of Archimedes' screw, which he associated with the idea of a waterfall and torrent. The emotional element dramatized the idea.

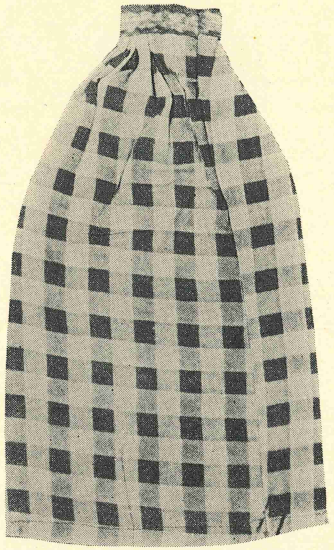


FIG. 7. 2 (a)

Another percipient, J. B., sometimes has truly unconscious perceptions, without any association. Working with him in an experiment, I looked at a little purse made of checked blue cloth shown in Figure 2 (a). (It came from a juggler's box and was used to hide a little figure.) The two perceptions of the percipient were clear and almost exact. The shape of the object was correct and the squares were drawn like the lozenges associated with the idea of a Harlequin. This was the emotional element which served to objectify the message, for it appeared first, see Figure 2 (b).

In another experiment I looked at the swinging of a pendulum that I held in my hand. Bonnet received the impression of a double decimeter, then of a spring contracting and expanding. He diagrammed it by two arrows pointing in op-

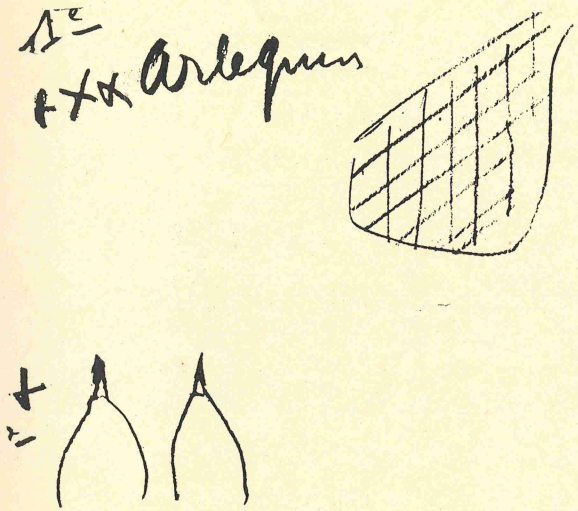


FIG. 7. 2 (b)

posite directions. Then an emotional element entered — waves topped with foam around something. The quality of motion was perceived without distortion.

In an experiment (not illustrated), B. D. placed a toy frog under a white paper. He touched a spring which made it jump into the air, lifting the paper. Bonnet received at first the idea of spouting, then the idea of a spring, then of a spiral spring associated with an emotional factor, a serpent.

The idea of a serpent involves an emotional element favorable to telepathic transmission. In one experiment J. B. looked at a print which showed the Iron Serpent of Düsseldorf; see Figure 3 (a). Mme. S. received, first, a serpent, something which writhes, and then something going noisily up and away, perhaps an airplane; see Figure 3 (b). Happily, the imaginative distortion went no further.

In another experiment I, as agent, shut myself up in the

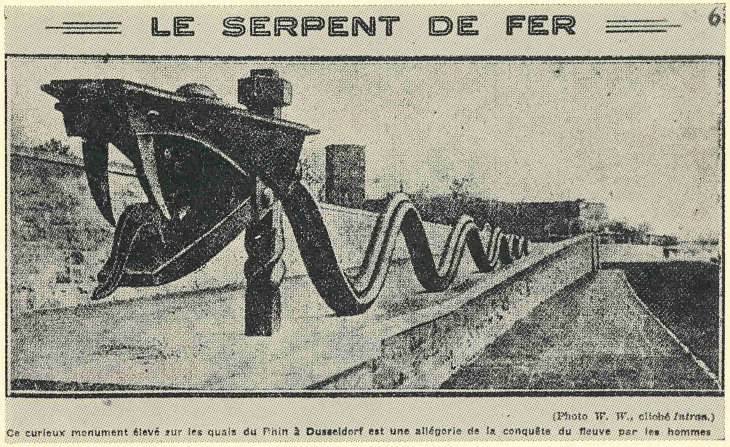


FIG. 7. 3 (a)

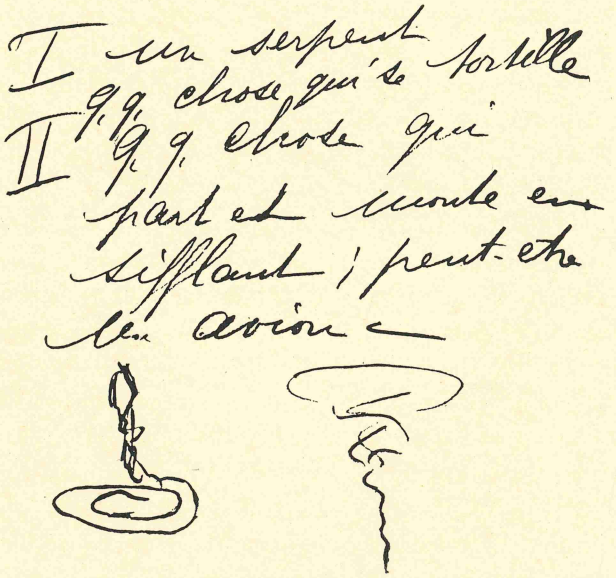


FIG. 7. 3 (b)

photographic laboratory of the *Institut* in complete darkness. Then I wound a cord around my index finger very tightly, and left it there for five minutes. I experienced actual pain localized at the end of the finger. I did not think of the percipients, but of the discomfort which I renewed by unwinding and rewinding the cord. I had not only a tactile sensation, but also a quasi-visual image of the bound-up finger, especially of its extremity. After five minutes, when I turned on the light and unbound the finger, I was surprised by the deeply marked ridges on the finger, the end of which was red and misshapen.

Bonnet perceived first a form which he associated with the trunk of a tree, then a branch of a tree, then a gun barrel, and finally the exact form of a finger. Neither the idea nor the pain was transmitted, only the form of the finger. The exaggeration of the size of the finger-tip was very significant. The drawing corresponded much more to my sensations than to objective reality; the ridges, as perceived, corresponded on the contrary more to the reality than to my conscious impression. Finally, he drew a bundle of fagots and explained it as something in a circle. The idea of the imaginary tree still prevailed.

In yet another experiment, I shut myself in the darkness of the photographic laboratory and without making any movement imagined that I had that particular sensation which one experiences if he crosses the middle and index fingers and holds a little pellet between them; the impression is that of touching two balls instead of one. I purposely kept my fingers wide apart, and I had no ball. I wrote nothing either before or during the experiment, but only after it while the percipient was making his notes. Then I noted that my concentration upon this imagined sensation had been intense, and I diagrammed it. Bonnet, saying that he was not making a pic-

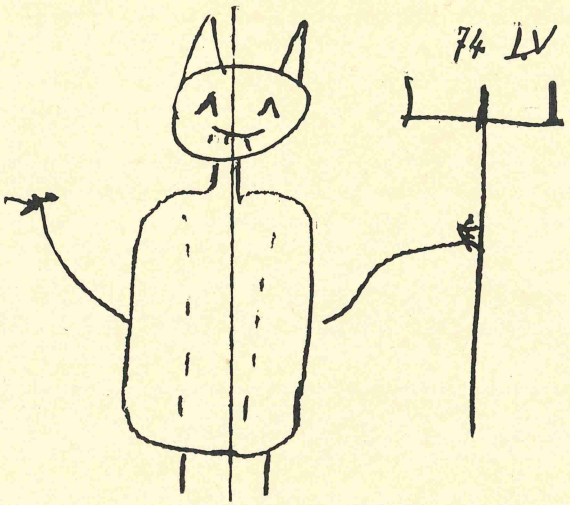


FIG. 7. 4 (a)

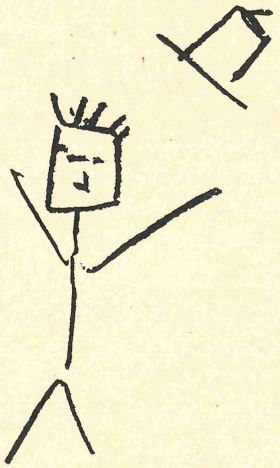


FIG. 7. 4 (b)

ture, drew (1) a diagram of crossed lines; (2) a long object between two arcs of a circle, (3) an arrow, (4) the intercrossing of two lines, joined together on one side, and (5) a couple, dancing. The dynamic elements released on the part of the percipient the emotion which led the imagination into this last image — dancers, with association of contact, intercrossing, rotation.

We shall now see how, in another experiment, the image emerged through association by contrast. I looked through a tube at a drawing of a dwarf, a gnome, which took up a whole sheet of paper. Bonnet described "a giant, or, rather, a drawing of a man, occupying a whole sheet of paper, and looking to the right."

At another time J. B. drew a devil, as shown in Figure 4 (a). Bonnet made a diagrammatic drawing similar to it, but added an imaginative element; see Figure 4 (b).

When the message is still more complicated, we distinguish perfectly (1) the work of dissociation and (2) the work of reconstruction. For example: I looked at a postcard showing a pyramid of men, soldiers doing gymnastics, which evoked for me memories of army days. The percipient, R. B., received first the general form, which he described first as a loaf of sugar, then as a clown's hat, then as a clown gesticulating, and, finally, as troops marching with many bayonets. The whole was grasped at first, at least its shape, and then the imagination attempted to complete the picture.

In another experiment in which we intentionally complicated the transmission, I drew two things: a ball on top of a pyramid, as in Figure 5 (a). Bonnet wrote: "A water bottle and a glass on a tray, then a big crystal. I notice that the glass reproduces a facet of the crystal, and that the carafe assumes roughly the form of crystal." This was written while Bonnet was in a passive state, and is shown in Figure 5 (b).

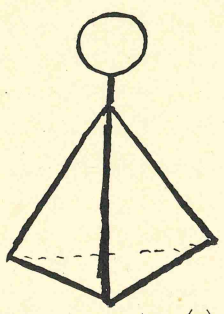


FIG. 7. 5 (a)

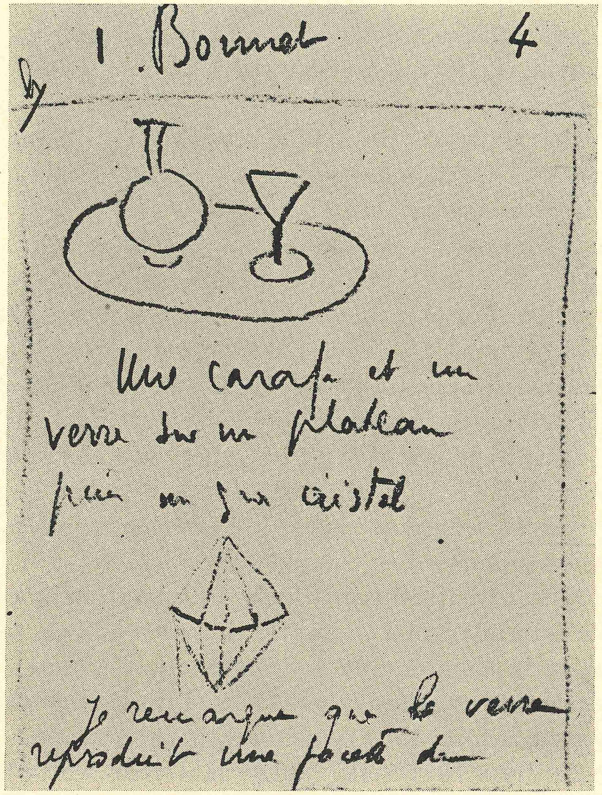


FIG. 7. 5 (b)

Here the percipient felt the fusion of images, which, however, he fragmented. We may admit that the idea of the pyramid attached itself to a memory-image of a bottle stopper, and that the idea of glass was associated with that of crystal. The imagination sought to unite, by association, the two elements, ball and pyramid, into one whole perception which appeared coherent to him. Here the emotional element is marked.

J. B. in another experiment looked at a colored postcard showing three monkeys playing at a blackboard; one of the animals had his jaws open wide. This was the only detail received by Bonnet, who wrote: "I see the jawbone of an animal, or rather I am thinking of an animal who shows his fangs, a gorilla; but I do not see the jaw, I see a pair of pincers."

We must believe that the message was present subconsciously, ready to emerge, as the first part of Bonnet's description leads us to think. The gorilla which shows his fangs was revealed by the jaw in associating itself with a memory of pincers. It was perhaps the only element of the picture capable of making an association at the moment of the experiment.

At another time, E. thought of a childish sketch of a man drawing water from a well. Bonnet drew: (1) water falling in drops, (2) the rim of the well, (3) something falling or going down into water with great drops. Then he received the idea of locomotive smoke and a paddle wheel. Aside from the rim of the well — an element of the drawing — and the smoke of the locomotive — a foreign element — we recognize the association of the details of the drawing, according to the process of fusion of images. The impressions of water and of the falling bucket are combined with the pulley, to become the paddle wheel of a boat.

FIG. 7. 6 (a)

In another experiment, G. D. and J. B., as agents, looked at a colored print representing a clown with red polka-dotted pantaloons who is passing a knife over the tire of a bicycle wheel as if it were a grindstone. He wears a beard in collar style, and his tongue can be pulled in and out. See Figure 6. Bonnet, percipient, wrote: "(1) A clown, (2) a dog holding a hoop in his mouth, (3) a fish constellated with rubies, (4) a moon, a little collar, sticks out tongue, (5) flying duck, a funny idea of G. D., a joke, (6) a bird on a milestone, (7) something under waves."

In this experiment we see an extraordinary mixture of successes and failures. The principal idea is found almost correctly at the beginning and quite correctly toward the end — the clown and the funny idea. The dog is an association by resemblance to the head of the clown. The hoop is an association by resemblance to the bicycle tire; imagination associated it with the "dog."

The term "constellated with rubies" presents an instance

of inversion of the red trousers starred with white points — an association by contrast. This inversion is frequent; we shall speak of it again. The words "sticks out tongue" are the exact element. On the other hand, the fish, the flying duck, and the bird over the milestone are foreign elements of unknown origin.

It would be very naïve to think that each detail comes by itself to the subconscious of the percipient by successive transmissions exactly as the message emerges in his consciousness. In this last complex example, we have seen that the first perception (a clown) includes them all.

We have other cases in which it is exactly and only the perception of the whole that comes to light without details. Once de Zeltner drew a series of ten sailboats grouped in two lines, one above the other. Mme. de Zeltner received the diagrammatic image of the whole thing, and imagined that it had to do with a tapestry design.

Bonnet tried to transmit a complex image made up of the same elements repeated, mountains and stars. R. W., the percipient, wrote: "Object repeated a great many times, as a starry sky." There were, in fact, stars, but that coincidence might have been accidental. What certainly was *not* accidental was the impression of a repeated design.

G. D. drew a series of bells which, he noted, he associated in his mind with little campanula flowers. Bonnet received (1) the idea of flowers, (2) a sky sown with stars or repeated design. E. received, in the same experiment, (1) the shape (of the bell) expressed as a helmet, (2) a basket. Finally there arose the idea of music. We note that the first percipient got the whole, and the second got the details, but not the whole.

Observe also that the same dynamic factor, a repeated object, was associated by two percipients with the same image — a starry sky. In the "clown" experiment, the same percipient

used the word *constellated* to describe a similar detail. We had the good luck to recognize the association of ideas, bell-helmet, in E's case. He had just read an account of the experiment in which L. drew a church bell; and R. W. (percipient) wrote: "(1) The shape of a bell, (2) a helmet, (3) the child Jesus (religious idea)." The association of bell and helmet was the path of least resistance, by contiguity, for emergence into the consciousness of E. Then the association of bell and basket was immediately corrected by the idea of music, showing clearly that the bell image existed from the first, as part of the subconscious whole.

Let us recall the earlier experiment concerned with the pyramid of soldiers. In this the perception of the whole preceded that of the details. The message was apparently detected all at once, but could emerge into consciousness only in fragments which could associate themselves with some memory-image on the fringe of consciousness.

One might say that the whole is illuminated, even for the agent, by a psychic flash proceeding from the percipient and permitting to the percipient himself, in his subconscious, a latent psychic snapshot. (I am speaking of experimental telepathy, and not of spontaneous telepathy.) This impression would not reveal itself, except fragmentarily and by a play of the imagination. Nevertheless, the psychic flash always seems to me brief; the telepathic faculty is very fragmented, very limited.

This flash would resemble a pencil of light from a psychic lighthouse, exploring, with great rapidity, whatever could be detected. When the perception is panoramic, it is without clarity. When the light is a very narrow beam, the perception is clearer, as in the case of the experiment involving the gorilla. There in the whole picture only the animal seemed to have been clearly distinguished, and only an isolated part

of it — its open mouth or jaw — could emerge by association with the idea of pincers.

Be that as it may, this supposed "psychic lighthouse" illuminated both the material reality of the drawing and the mental content, with no apparent distinction between the subjective and the objective. Hence it must be admitted that the so-called subjective has points in common with our objective reality.

This is not the place to investigate the character of this mysterious psychic light. It is not unknown to anyone, and it differs from normal attention only in that it is directed inwardly rather than outwardly.

The psychic developer is the imagination. And it often behaves like a photographer, too hurried to understand and await conclusions, embroidering and dramatizing every detail of the picture as it reveals itself, according to its appearance at the moment.

The imagination plays the very best or the very worst part in experimental telepathy. Small percipients like us become telepaths by means of their imagination — normal at first, and later paranormal. But it is interesting to observe in the half-failures of the great telepaths the same play of imagination that we see in our best experiments. The less imagination there is, the better the telepathy.

CHAPTER VIII

Telepathic Drawing

WHAT do we mean by "telepathic drawing"? There are drawings whose origins may be telepathic, "automatic" drawings, but they belong to the realm of mediumistic phenomena.[1] Percipients in telepathic experiments, however, are wont to illustrate the impressions they perceive; these drawings of telepathic images are the subject matter of this chapter.

We have obtained many drawings of great merit, which, however, teach us little of the telepathic process itself. When Ossowiecki was supposed to receive an image of a bottle, and drew a bottle that could be placed exactly over the drawing that had been prepared, we were amazed, it is true, but we were not greatly enlightened. Hence we shall select for our consideration a certain kind of telepathic drawings — the imperfect ones.

The subjects with whom we have worked during the last twenty-five years are amateurs, only slightly telepathic; they may be divided into two groups, those who know how to draw, and those who do not. We shall say at once that the quality of telepathic drawing has not been influenced by skill

[1] De Szmurlo, Prosper, *Mediumistic Drawing*, Transactions of the Fourth International Congress for Psychical Research, Athens, 1930, p. 63.

in drawing, except in the case of one professional draftsman who was more impeded by it than helped.

In this short study, in which we can touch only the surface of the problem, we shall set out from the telepathic hypothesis which we consider to be already justified. We hope that the study of these sketchy drawings will not only clarify the problem of telepathic emergence, but will help to make more acceptable the idea of the existence of telepathy itself, while at the same time marshaling some essential proofs.

From the investigation that we have conducted with twenty percipients of the visual type, we have found that telepathic images have several outstanding characteristics. They are vivacious, abrupt, fleeting, generally in black and white, colored but rarely — only, in fact, in the experiences of certain subjects. The image has a tendency to appear in the middle front of the visual field, except in the case of one subject who had been operated upon for glaucoma. With this subject, images seemed to localize on the right side. Sometimes there appears first a lively memory-image, then a hypnagogic illusion. It is frequently accompanied by an idea, which may either precede or follow it. Often the image is reduced to certain diagrammatic lines which express this idea.

How can these images be distinguished from certain other abnormal mental images? We shall search for the answer to that question while considering the characteristics of the images themselves.

Telepathic images have a similarity to images induced by such drugs as opium, hashish, and peyotl. They also have some qualities in common with the drawings of the insane and of primitives, but they resemble most particularly those of children, as we shall show.[2] The distinguishing traits with

[2] Luquet, G. H., [Evolution of Juvenile Drawing], *Bulletin de la Société Binet*, 1929, 29:145-183.

which we shall now be concerned are (1) fragmentation, the breaking up of images, with the elimination of some parts; (2) juxtaposition of the component parts; (3) orientation with inversion; and (4) multiplication of the elements involved.

1. *Fragmentation.*

We notice fragmentation in nearly all telepathic drawings. And we shall observe that a part of an image is perceived more often than the whole, and that the whole is sometimes reduced to a confused perception, or is not perceived at all. Whatever motion there is in the image is perceived best. Examples of fragmentation have already been presented in the preceding chapter; more follow.

Case 1 — Experiment of January 11, 1930. The agent, R. W., focused his attention upon the drawing of a St. Andrew's cross, particularly upon the center. The percipient, E., received two images: (1) a part of the drawing, and (2) the whole of the drawing, but with a false interpretation. The idea was disguised as an envelope.

Case 2 — Experiment of February 16, 1930. In an envelope were placed ten postal cards, numbered as follows:

1. Field of battle, with dead.
2. Transatlantic liner *France.*
3. Airplane *Santos Dumont,* 1906.
4. The great flood of the Seine in 1910; salvaging merchandise.
5. A cat drinking champagne.
6. Old houses.
7. The Pyrenees.
8. An old bridge with a tower.

9. Diana as huntress.
10. St. Elizabeth visiting the sick.

The agent, J. B., chose, by chance, card No. 4 [Figure 1 (a)] from the envelope and concentrated upon it. The percipient, V., wrote "vehicle" and "a reflection of the moon," and made the drawing shown in Figure 1 (b). When the trial was finished, we asked the percipient to choose from the envelope the card that seemed to correspond to his image. He chose card No. 4 without hesitation. Only part of the picture had been perceived. He received the wagon and the shadow of the horses in the water, but not the flood.

Case 3 — Experiment of February 1, 1930. Agent, E., percipient, B.

The agent looked at a drawing of a windmill in the middle of a field. The percipient made a series of drawings indicating fragmentary perception of paddles, finishing with a movement of vertical rotation.

Case 4 — Experiment of February 8, 1930. Same experimenters.

The agent looked at a complicated drawing depicting a toboggan slide and a glass of water. The exact notes of the percipient, accompanying the drawings which he made, follow: "A hand like that, water falling from a water mill, a glass filled with water, a long neck."

The agent had fragmented the message while drawing the principal elements, the spiral, the drop of water, and the glass filled with water. The percipient did not receive the idea of the spiral, upon which the agent had insisted. The idea of the horizontal rotation was associated with the idea of water. The percipient fragmented the image on his own account.

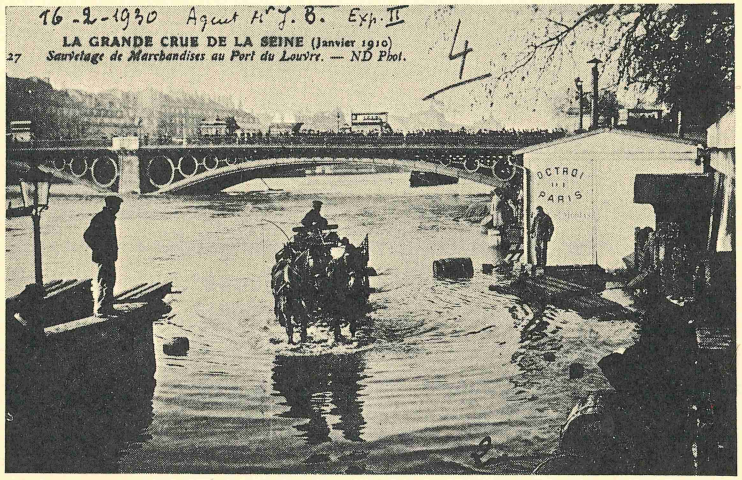


FIG. 8. 1 (a)

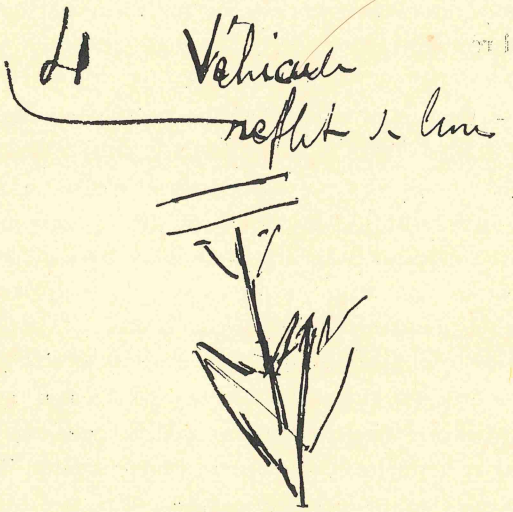


FIG. 8. 1 (b)

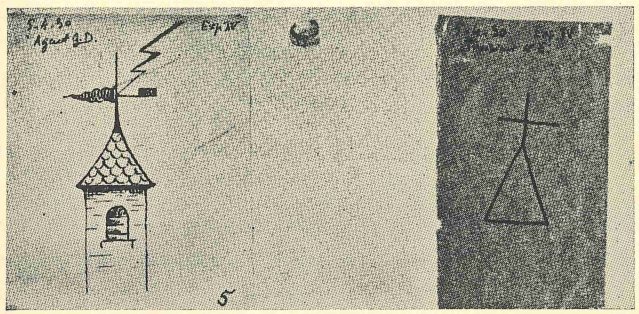


FIG. 8. 2 (a)

FIG. 8. 2 (b)

Case 5 — Experiment of April 5, 1930. The agent, D., drew a belfry tower with a cross being struck by lightning, as shown in Figure 2 (a). The percipient drew a belfry tower with a cross, and with the *idea* of burning, but without connecting it with the drawing; see Figure 2 (b).

Case 6. This is an experiment performed outside the group, the authenticity of which I guarantee. The agent looked at a pair of silver-framed spectacles. The percipient made a drawing and noted, "Vision of a whitish figure, biconvex at the base, spreading in a spiral at the extremities, some kind of pig, turned over, and with a double tail." The fragmentation here is quite evident, also the inversion. Only the form was grasped.

Some experimenters have had much to say concerning fragmentation of telepathic images other than drawings. Abramowski, who was particularly interested in the telepathy of written words, says in *Le Subconscient normal,* "The weakest telepathic activity is revealed in responses which are like suggestions by letters contained in a word. It is as if only the outside appearance of a word is received, without the percipient's

grasping its meaning." He speaks also of telepathic dissociation of words, saying, "For the suggestion of the word 'cross,' which in Polish begins with the letter K, nothing occurs to the percipient but some words beginning with K." And Lombroso[3] cites the word "amore," transmitted first as "marier," then as "amore."

Bruck remarks on incomplete transmission of drawings: "We confirm here the same subtraction of elements established by Osty's experiments with Mme. Kahl. The sides of a triangle or of letters are sometimes lacking in the reproductions of the percipient."[4] Fragmentation of drawings can also be seen in telepathic experiments published by the Society for Psychical Research (London).[5] And almost every page of drawings in Upton Sinclair's *Mental Radio* exhibits these same characteristics.

In the drawings of primitives, subtraction of elements occurs frequently. Such objects as arms are omitted, or the legs of a horseman, or the mouth, nose, body, and reins of a team of horses. "Primitives draw detached parts of the object, such details as the hairs of a horse's mane or the fronds of a plume. The horns and ears of the same animal are all arranged in the same line, one after the other."[6]

There is an interesting case which fits here well. The telepathic image sent was that of a giraffe. The idea of a giraffe was received, but this idea was accompanied by drawings of four figures, which appeared to be the two ears and the two horns of the animal. It was a surprising coincidence.

Fragmentation is again encountered in drawings by the insane, who, however, elaborate the parts indefinitely, a thing

[3] *A.S.P.*, 1904, pp. 267, 269, 271.
[4] Bruck, C., *Experimentelle Telepathie*, Putmann, Stuttgart.
[5] *Proceedings of the S. P. R.*, 1891, 7:83, 89, 93.
[6] *Antilope d'une peinture rupestre des Indiens Pueblo de l'Arizona*, p. 294.

that almost never occurs among telepaths. It appears also in mediumistic drawings, as with Gruzewski, who paints eyes without faces;[7] it is found in peyotl visions,[8] and again in children's drawings. "The child draws an eye beside a head."[9]

2. *Juxtaposition of Elements.*

To quote Piaget, "The lack of synthetic capacity in the child leads to a juxtaposition of detail. The field of his attention is too narrow; he looks at the objects one after another, and consequently sees rather the details. The child makes the comparison, not during the attentional act, but afterward. He has no idea of relative importance, and is content to itemize. Not understanding the relation of the part to the whole, he often forgets the whole." The analogy with telepathic drawing is complete.

Luquet shows how the child creates for himself an internal model, intermediate between the object and the drawing. These internal models may be compared to photographic images of which only certain parts are in focus at any one time.[10] This analogy seems to us to be particularly suitable to the telepathic image. According to Luquet:

> The child never copies in a photographic fashion. He always makes a selection of the elements, directed by the importance that he attaches to them. His internal model goes from the whole to the details. His mind is not receptive, but active.
>
> Shall it be said that the child who, in drawing a horse, has drawn the legs in one corner of the sheet of paper, and the head in another, has at first seen only the legs and then the head?
>
> In reality, different factors, among which the association of ideas finds a legitimate place, have drawn the attention of the

[7] *Revue Métapsychique*, 1928, p. 109.
[8] Rouhier, *Le Peyotl.*
[9] Piaget, *Traits principaux de la logique de l'enfant*, p. 67.
[10] Luquet, G. H., *Le Dessin enfantin*, Alcan, 1927.

child to one element of the whole, and then to another; but each of its elements implied for him the undifferentiated whole, of which the element was only a more sharply identified part at one moment.

Getting away from a *confused* representation of the whole, the child proceeds toward a *distinct* representation of that whole by concentrating his attention successively upon the different constituent elements. But for each of the elements, in so far as it emerges into clear consciousness, there remains, underneath, the representation of the whole, from which it has emerged.

Luquet finds in this the proof of the fact that "the details which are reproduced at first are the most important, the most essential; this implies selection, and therefore a comparison between details, and in consequence a consciousness of them all."

In considering telepathic drawings, we have no criticism of this finding to make at present. We shall see later whether or not the subject makes a conscious selection, directed by the importance that he attaches to the details. Let us accept the suggested hypothesis for the moment, with the reservation that, like a child copying an adult's drawing, the percipient does not necessarily attach to the same elements the same importance as does the agent.

3. *Orientation and Inversion.*

With the relative location of the details of a drawing is connected their orientation. Luquet observes the indifference of the child to the placing of the whole drawing with respect to the sheet of paper, blackboard, or wall upon which it is made. In children's drawings, certain details receive, without shocking the child in the least, a position inconsistent with the rest. For example, the contour of the body of the objects may be placed upside down with respect to their extremities. These inverted images occur frequently in expressions of

motor automatism. I may also mention the mirror-writing of mediums, the drawings of the insane, and the works of some modern painters. In one of Herwarth-Walder's pictures, the smokestack of a train is underneath, the wheels are on top, and a man and woman are horizontal.

These inversions are observed also in delirium and in peyotlic visions. Freud insists that he finds inversion in dreams. Inverted images, horizontal instead of vertical, or completely turned about, are frequent in telepathic drawings. Even an extraordinary subject like Ossowiecki is not exempt from such errors. He represented a long fish with its head at the right, as a very fat fish with its head at the left. The same inversion developed in our experiments at the end of 1929. I shall now describe another remarkable case of inversion.

The agent, R. W., looked at a target which was illuminated by intermittent light. There were two percipients. One wrote, "Horizontal éprouvette," "gauge," and then drew some concentric arcs, but the smallest was farthest from the center. The other precipient saw concentric circles, but not arranged in the same manner. The first percipient mentioned in this case gave two very striking instances of inversion. It is apparently a personal idiosyncrasy.

Here one notes the incapacity for coordination of images, once they have entered consciousness. They are, so to speak, abandoned to their caprice. Like balloons, launched successively by the subconscious, they seem to be drawn along by a contrary wind, reversing the internal model.

The observation has been made by other experimenters, particularly by Victor Poucel, who cites "the transposition of the form of a wheel into that of a daisy, turned inside out."[11]

[11] Poucel, Victor, "Une Exploration télépathique," *Études*, vol. 196, no. 17, p. 534.

4. *Multiplication of Elements.*

Multiplication of elements is frequently found in telepathic transmission. It was first pointed out by Dr. F. H. Van-Loon, of Groningen, in the *Journal of the S. P. R.* for January-February, 1921. He observed the division of images into two parts. As a matter of fact, fragments of images which emerge from the subconscious tend to gather together in the conscious with all sorts of apparently logical reason. They obey the law of rhythm and of symmetry, as in insanity.

Luquet, in *Le Dessin enfantin,* says, "The child is not satisfied with one drawing, but sometimes makes a hundred alike. This tendency expresses itself at intervals during the days following the first drawing." Something like that happens to the telepath. A telepathic image reproduces itself sometimes in a dozen succeeding experiments, disguising and associating itself with true perceptions. Multiplication of dream images has also been pointed out.[12] And repetition of the same words and the same gestures is common among the demented.[13]

Other experimenters in telepathy have also pointed out multiplication of images. In one of the experiments of Usher and Burt, a target was chosen as the object of a telepathic message. The target was no more successfully received than it was in our experiment. Only parts of each circle, arcs of concentric circles, with several repetitions, were received. It is remarkable that with one of the percipients the bull's eye of the target was also multiplied.

We must not confuse the multiplication of fragments in one image with repetitions of an image in the course of the same experiment. This happened in the experiment of the Rose-cross, previously cited. The drawing of the rose appeared twice, with variations.

[12] Ellis, Havelock, *The World of Dreams.*

[13] "L'art inconscient," *Revue Métapsychique,* 1928, p. 314.

Conclusions

There are resemblances and differences between telepathic drawing and either normal or abnormal drawing.

Telepathic images have characteristics in common with those that appear with hurried recollections.[14] If a subject is shown a complex drawing for only a short time, and then asked to draw what he has seen, he describes fragments of the drawing without order, the details appearing before the whole, which has been seen only confusedly. That is, after all, the same mechanical act of recalling memories that we find in the child. As Luquet has written, the child gets at first a confused recall of the whole image, then a clear impression of detail.

One may admit that the complex latent image exists in the mind of the percipient, and that his effort is to bring it to light. Sometimes one detail reveals itself, and one fragment appears in consciousness; then a second and a third, with no apparent connection between the order of their appearance and the order of their interest. They are entirely irrational. Sometimes a combination of details of the same dynamic intensity appears, giving a confused idea of the whole. Often, as we have said, the first lines of the image serve as a substratum for the imagination. As the internal model is deeply buried in the subconscious of the percipient (if not in that of the agent) the percipient is absolutely incapable of making any comparison between what he believes he perceives and what is there. Most often the plate is found clouded; very rarely does the whole emerge before the details, as in photographic development. When the meaning, the idea of the picture, becomes conscious, it is by deduction. It is not the *meaning* which is transmitted, but the image.

[14] Klüver, H., "Fragmentary Eidetic Imagery," *Psychological Review,* 37:441-458.

CHAPTER IX

The Problems of Reception

WHAT goes on in the agent's mind is not clear. Transmission may be voluntary or involuntary, immediate or retarded, for the agent is not conscious of the intracerebral mechanism which provokes the releasing of a telepathic wave. The situation of the percipient is not quite the same, for the message must necessarily appear to the senses in some more or less direct manner. Putting aside cases of intuition, of presentiment in which the percipient is unconsciously led to a feeling of sadness, joy, or anger, we may say that the telepathic message sometimes manifests itself through the motor centers in some automatism — in an urge to write, to speak certain words, to make this or that unconscious movement.

But the telepathic message is most frequently manifested through the sensory faculties of sight, hearing, touch, taste, and smell. The English writers, in *Phantasms of the Living,* have shown the predominance of visual hallucinations, in spontaneous telepathy, over others; subjective hallucinations due to illness or fatigue are more often auditory, like those of the insane. Two hundred and seventy-one visual telepathic apparitions are reported, as against only eighty-five auditory phenomena. But among non-telepathic hallucinations, of 5,705 persons chosen at random, thirty-three have had audi-

tory hallucinations and twenty-one have had visual hallucinations.

We must admit, as a starting point, that the images which appear to the mind of the percipient under the form of hallucinations, dreams, or more or less well-formed images, spring exclusively from *his own mind,* from his own conscious or subconscious memory. *There is no carrying of the visual impression from the agent to the percipient,* any more than there is actual carrying of a letter of the alphabet from the sending apparatus of a telegraph office to the receiving office. The transmission of the message consists in making the same letter of the alphabet *appear,* but it already *exists* at the receiving apparatus, along with all the others, before the transmission takes place. This concept gives the telepathic phenomenon a more objective bearing; we might say that it seems to explain the facts.

It is essential for us to examine the visual images that present themselves to us, in order to find just what images can best manifest spontaneous messages. To do this it would be good to work out a classification — for example, the order of objectivity — and to arrange in each class those cases which have come to our knowledge. The classification which follows is only a suggestion for the further study of visual images.

ATTEMPT AT CLASSIFICATION OF VISUAL IMAGES

When we ask a person to look into his mind and to describe how thought presents itself, he usually answers that he senses it in the form of images, more or less clear, like unfinished drawings. For instance, if it is an idea of a horse, he will see its silhouette, hear the word horse, or see this word. Others, fewer in number, will have the idea of the movement of the legs of a horse or will see a particular horse. Still others will hear hoof-beats.

Among persons with a mental bent toward abstraction or generalization, who think without clear imagery, the idea of a horse does not seem to lead to a clear representation. There is only the sensation of a vague, incomprehensible, mental presence. This class of images, or rather, *absence* of images, would have in our classification a rating of *zero*.[1] No telepathic phenomenon, it seems to me, is likely to manifest itself completely through these inexact intuitions.

Class 1.

When we try to remember a past fact or person, usually the mental image does not present itself clearly; we glimpse an outline of the whole. Sometimes, in the case of the face of a well-known person, the visualization is more difficult than for that of a stranger whom one has rarely seen.

"It seems," says Philippe, "that numerous old impressions of the same image are confused by superposition, as one obtains a composite picture of a family by superimposing photographs of its members until finally one type prevails."[2]

This class of image, very frequent in normal consciousness, is not adapted to telepathic transmission.

Class 2.

In general, old impressions, such as country scenes of ten or twenty years ago, are more faint than recent or present impressions. Landscapes, houses, and furniture seem to appear to me more distinctly than do people's faces, except

[1] Yet it is important to note here that the author is attempting a qualitative, as well as a quantitative, comparison of images; the purpose is quite different from that of standard laboratory studies of intensity of images.

[2] Philippe, Dr. Jean, *L'Image mentale.*

when I have seen them again in a photograph. I notice that I have a longer visual memory for drawings, paintings, and cinema films than for nature. We can well distinguish degrees of intensity in memory-images according to the length of time since the impression, as we try to recall persons known at different periods of our lives. For example, they will have ratings of 2, 2′, 2″, etc. I have not made enough experiments to be sure, but I believe that I have noted that light does not distort this class of recollections. The clarity of the images is perhaps greater with open eyes than with the eyes closed.

Class 3.

This class includes memory-images whose vivacity is increased by natural or artificial procedure.

Psychologically, attention, concentration, meditation, and reflection are conspicuous here. Physiologically, we note knitting of the brows, tension of the ocular muscles, etc.

Old images, or those newly awakened, may tend to become objective. Sometimes they are made up by complex association of fragments of images, growing like a rolling snowball. Sometimes they appear as in one single piece, but incomplete. There are inexplicable gaps which are immediately filled by foreign images. Philippe calls them "stop-gaps." We notice here independent manifestations, similar to what occurs in works of genius.

The essential difference, from our point of view, between this degree of the objectifying of mental images and the preceding classes consists in the fact that the telepathic message in the former could only increase the intensity of the image, without modification of it, like focusing the psychic photograph of a person on the screen of the mind. But in this third

class the mental image shows a tendency toward objectification and dramatization, as if it were animated by life of its own.

Class 4.

Here we have images formed of recent impressions, strong enough to struggle with present sensations; for instance, the image of someone whom we have just left occupies our thoughts so fully that we walk along for several minutes, seeing nothing of the surrounding country. The images may take on the appearance of the initial perception; they will then be "after-images." The very recent ones seem to be still retinal, arising from the fixation of a brilliant object, such as the sun, during an impression. But others are caused simply by directing the attention upon any object for a long period and they generally appear several hours after the impression.

For example, a precipitate in a test tube, which had greatly interested me during the day, appeared spontaneously to me that evening, with the same color intensity and the same appearance as the reality. This recall seemed, like fatigue, to be due to many causes, physical, physiological, and psychic. The appearance may be subjective, mixed, or objective, according to the lighting conditions during the impression or after, and during the perception of the after-image. In this category we should include numerous optical illusions in natural or complementary colors.

Class 5.

These are the images of conscious present perception. They are irrelevant to paranormal manifestations.

Class 6.

Here we class positive or negative *illusions* produced during perception itself, as soon as the conscious is relaxed by some distraction, or under the influence of autosuggestion, fear, etc. Their appearance is completely objective, and is due to external stimuli under certain lighting conditions. For instance, a tree trunk in moonlight may take on the appearance of a man hiding. Persons of vivid imagination see things in spots on walls, just as artists see pictures in clouds. In a state not exactly wide awake, impressions may be poorly interpreted by the conscious mind, or desire or fear may get the better of reason.

I shall give some personal experiences copied from my notes. One morning as I woke from unsound sleep I saw in the wall-paper design a death's head which carried forward the thought of my dream. Another morning, on awakening, I looked at the hangings of my bedroom and saw there a design which formed a head, closely resembling that of Lloyd George seen the evening before in a newspaper. On yet another morning, while taking breakfast, my eyes fell on a printed sheet tacked up by my children. I saw there the proper name "Fricard," and I thought of the person for whose name I had been vainly searching for some time. Really the word printed there was "phoscao"; there is some resemblance between the form of the first two and the last letters of the words, and the number of letters is the same in both words.

Cases of this sort have a certain theoretical importance, since they permit us to glimpse an experimental procedure, to look for a reagent capable of forming a precipitate, of developing the subconscious impressions. In the first case just cited, the reagent was a dream; in the second it was an ob-

jectified memory; in the third it received a sort of telepathic message from a lower level of my own personality.

Sometimes telepathic influence is more definite. I quote an instance from *L'Inconnu et les problèmes psychiques*. Miss Valentine C., the percipient, relates that she had been painfully separated from her childhood friend, Hélène, whom she knew to be ill. Hélène had given her photograph to Valentine, placing it upon the bureau herself. Valentine writes: "On the 15th of April, 1896, I was intent upon a problem of geometry, when I saw the photograph move its lips. The mouth opened as if it wished to speak, the eyes opened excessively wide, then closed. The hand of the clock pointed to eight." At ten o'clock Valentine received a telegram saying, "Hélène died at eight o'clock." While dying, Hélène had spoken of her photograph!

Class 7.

Here we find hypnagogic illusions. These particularly clear images have been studied by many psychologists, particularly by Maury[3] and Havelock Ellis.[4] These hypnagogic images are produced spontaneously immediately before sleep or directly after, on waking. Myers calls the latter "hypnopompic."

I mentioned personal cases of this class in Chapter I. I shall cite here a few which present unusual psychic interest. These visions appear like diminutive colored photographs, inanimate, but succeeding each other in rapid succession so that there seems to be no connection between them. Most observers find in them these same characteristics. In my own case, they frequently seem to be localized in only one of my eyes. They are not always in miniature; they are sometimes of nat-

[3] Maury, *Le sommeil et les rêves.*
[4] Ellis, Havelock, *The World of Dreams.*

ural size, having the appearance of a magic lantern projection. These images, appearing so spontaneously, are either recent or old impressions of complex memory patterns, which may or may not have been forgotten.

Contrary to what Maury has observed about himself and other experimenters, not one image seen after waking has had the least relation with the dream which preceded it. This is also the case with Mrs. C., who has been kind enough to describe her images for me. These images appear to me with my eyes open or closed; they generally face me, sometimes they are turned to the side, and, in that case, they are diminutive. Their duration is very short – more than one second, but not more than a very few seconds, as well as I can judge in that almost sleeping state in which they occur. The least thought arising in my mind is enough to dispel them. That does not seem to hold with Mrs. C. Her visions always seem externalized, and they last only as long as she does not turn away her eyes. She has the same visions with her eyes closed.

For me these illusions are always concerned with such subjects as faces of my friends or strangers, visions of myself or living relatives, or of apparatus or other visual objects, and most frequently visions of country scenes and plants, with never anything dramatic or sensational, or any phantoms. One of them possessed all the characteristics of reality – a vision of a part of my bedroom, the ceiling, and the red and white striped curtain that I see when I am lying in bed when it is in full daylight. The vision faded after a few seconds, and I found myself in complete darkness in the middle of the night. In another one of the same nature, occupying my whole field of vision, I saw on my pillow, very clearly indeed, a large piece of a mineral that I was studying in my laboratory at the time. Another time I saw a vision of a round dining-table, covered with a cloth, on which there was a cup of cof-

fee and a saucer at the far edge of the table. A willow chair, of which I could see only the back, was drawn up to that side of the table. I recognized the pattern of the cup and saucer as that of some china we are still using, but the pattern of the cloth showed it to be one that had not been used for some time. The willow chair was one that we had about four years ago. The following is an example of a "hypnopompic" illusion: My bedroom was in semi-obscurity, and my head was turned toward the side from which the light came, softened by red curtains. I perceived externally, about a foot in front of me, an image of my friend M. T.'s head. It was about as large as a silver dollar.

In hypnagogic visions in general, we find the influence of desire and of fear, the tendency toward dramatization, symbolism, and the presentation of ideas under different aspects. Most frequently they are absolutely capricious, and do not yield to autosuggestion. I have often tried this as an experiment. They can be evoked consciously, but then the independent elements are not as rare as they are under paranormal conditions.

Class 8.

Hallucinations may occur in the normal waking state, or in cases of nervous and mental disease, in cases of dissociated personality caused by suggestions or autosuggestion, and in mediumistic trances.

The appearance of these images is objective; they result, above all, from a pseudo-displacement of the conscious by more direct contact with subconscious imagery. They are constituted of the same elements as the visions of Class 7, but the tendency toward dissociation of personality is much stronger. In insanity hallucinations are numerous, but rarely

paranormal, whereas among normal subjects, on the contrary, the telepathic message frequently takes on an objective appearance. But the intensity of a vision by no means proves that it is paranormal.

Class 9.

Dreams belong in this class. According to the most probable theories, normal sleep is induced by the effects of toxins upon the nerve cells. Such toxins are the residues of chemical action, incident to the day's muscular activity. The relaxation of the conscious mind, upon falling asleep, would permit only a reduced activity, in which the reasoning faculties would be inhibited, so to speak, while the apperception of unusual sensory and kinesthetic impressions would continue. These would produce dreams and nightmares in which the intensity of mental images would present an objective aspect during sleep, and a subjective aspect after awakening. Contrary to accepted opinion, the paranormal is rare in such dreams and nightmares. Telepathic messages, overwhelmed by spontaneous associations, are often embedded in strange elements which disfigure them or give them a particular *symbolic* stamp; but this does not always happen.

CHAPTER X

Analysis of Telepathic Messages

THE ACCOUNT of two series of experiments published[1] by Miss Miles and Miss Ramsden is of interest in connection with the analysis of telepathic messages. Their two series were curiously like the series I did with B., in which he, the agent, was in Montparnasse, and I, the percipient, was in Montmartre; the daily postcards we exchanged during this series of twelve experiments showed interesting coincidences difficult to explain by mere chance.

The first series done by Miss Miles and Miss Ramsden was done at a distance of twenty miles, the second at 400 miles. In the first we may count one and a half successes in eight, and some doubtful transmissions. In the second series, there are six successes in fifteen experiments, with five successes on the memory-images of the day, and one unconscious impression. Here are the observations that Miss Miles and Miss Ramsden make on the subject:[1]

> It must be considered whether part of our successes were not perhaps due exclusively to chance and not to telepathy. Miss Ramsden had usually a number of impressions each time. Naturally, the greater the number of impressions, the more probable it was that one of them would coincide, by chance,

[1] *Annales des Sciences Psychiques*, 1908 June and July; *Proceedings of the S.P.R.*, 1908-9 p. 60, 1914-15 p. 279.

> with the idea indicated by Miss Miles in her postcard. In addition, if among the successes we counted one case in which one of Miss Ramsden's impressions corresponded to one of the ideas which had played a predominant part in Miss Miles' thought that day, although it was not indicated on the postcard, the probability of fortuitious coincidence would be still greater. However, it is not possible, in cases like this, to make an exact calculation of probabilities, because not all the necessary data are known. We cannot even calculate the number of impressions noted by Miss Ramsden, since it is a question of opinion, and not of fact, to define what constitutes one single impression. And then certain impressions are much more complex than others, but it is impossible to say how many factors of equal value they contain.
>
> It is even less possible to calculate the number of ideas in Miss Miles' mind, to which some of Miss Ramsden's impressions could correspond. In the case of Miss Ramsden, we are at least limited to the impressions that she recorded, while for what relates to Miss Miles we must keep in mind not only the ideas that she records, but also the indefinite number of scenes and matters that she has not recorded.
>
> Finally, Miss Ramsden could not help having some general idea of Miss Miles' environment. For instance, Miss Ramsden knew that she was staying at country houses in the west of England, and this ought inevitably to lead Miss Ramsden's impressions in a certain direction, or at least away from other directions. Certain ideas would be more likely to come to her than others, but it would be impossible to define the degree of this probability.
>
> Thus it is clear that there could not be any mathematical proof that Miss Ramsden's exact impressions were in much greater number than chance could have given. And it is clear also that, on this fundamental point, only an approximate empirical judgment can be made.

Usher and Burt have also published a very interesting study,[2] which describes experiments with cards and drawings,

[2] *A.S.P.*, 1910, p. 16.

conducted at long distance — 120 miles and 1,000 miles. They write: "It is easy to understand that the proportion of successes with drawings is purely subjective, since the possible number of drawings is infinitely great. Consequently, although we cannot arrange a quantitative table showing the proportion of successes obtained in comparison with probable chance results, we can nevertheless attain some insight into the subject by using Edgeworth's method, which consists in comparing each particular drawing with its reproduction, and comparing also its resemblance to some other drawing of a different series, chosen by chance."

This is the method employed in some of our experiments, except that we compared each drawing with all the reproductions of several other series. Having eliminated explanation by coincidence, Usher and Burt reached conclusions similar to my own. "It has not yet been proved that success is in proportion to the agent's effort at concentration." Usher and Burt are here, like myself, in opposition to the opinion of spiritualists, who believe that an active power is necessary.

General Theory of the Will as a Factor

Usher and Burt show that transmission is almost always done subconsciously. What happens between the agent and the percipient is represented by the diagram in Figure 1. Usher and Burt conclude from this that the best conditions for transmission would be to have both the agent and the percipient hypnotized. This would permit experiment for the purpose of ascertaining just how far the *will to transmit* influences transmission. First, the operator would tell the hypnotized agent, A, to concentrate without trying to transmit. He would tell the percipient, P, that he would see something

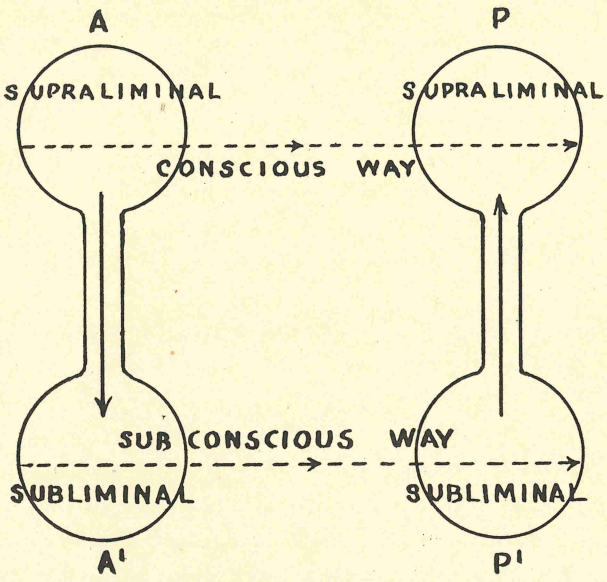


FIG. 10. 1

without trying to perceive. Second, the operator would tell A to transmit, while P remains as before. Third, the operator would tell P to receive, while A remains in the first condition. A then receives the order to transmit, and P to receive. There should now be complete rapport between A and P.

But can we really give to an agent in the sleeping state an image in some manner stronger than in the waking state? I do not believe so. It all happens as if the subconscious impression used itself up in emitting the light that makes us see it under the form of a conscious image. Hence, in developing a subconscious impression in the mind of a sleeping agent, one only incites it to waste itself quite freely in an objectified hallucination. To give the subconscious impression its free play of paranormal

activity, we must prevent that waste, prevent the image from becoming conscious. We must put it under conditions inverse to those of normal life, where these faculties do not manifest themselves. It is necessary to occupy the agent's mind, to fix his conscious attention, while the impression to be transmitted is being provoked in him. For example, we may have him listen to a little music on the phonograph in a darkened room, while an image intended to impress him subconsciously is thrown on a screen.

Along the same line, we could have the agent read in a stereoscope a word that would be a logograph — for example, the words *or,* "gold" and *ange,* "angel," the one to the right and the other to the left. The normal conscious mind will be taken up with the word idea of *orange,* while the subconscious may be concerned with either or both ideas. Which one would be transmitted? I regret that I have never found the necessary conditions to try this experiment, but certain of my non-hypnotic experiments cover the same field.

1. In one case, Jaques was kneeling on the bed doing an experiment with a magnet. He was fulfilling the conditions desirable for an agent — concentration without trying to transmit. I was awakened at the hour of the experiment, and at that moment a hypnagogic illusion showed him to me in that position. Such cases are unusual, but they exist. They come in the class of spontaneous telepathy. (See Figure 2.)

2. In general, in experimental telepathy, when the percipient does not try to perceive, transmission does not take place (Figure 3).

3. I have had some success under these conditions, when the agent does not will to transmit, while the percipient tries to perceive (Figure 4).

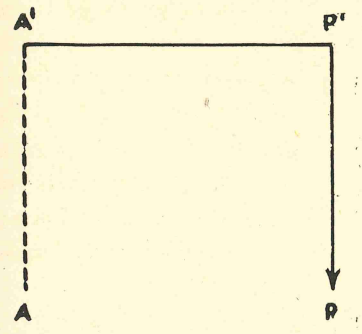


FIG. 10. 2

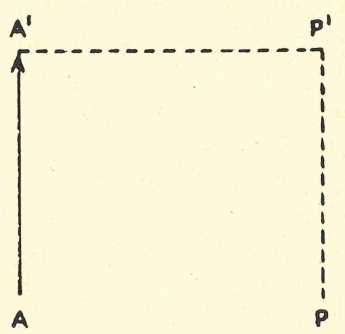


FIG. 10. 3

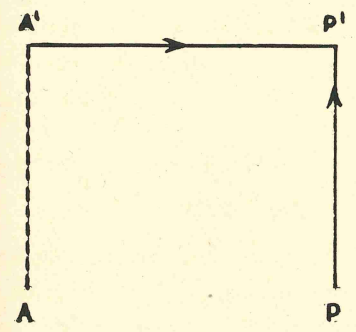


FIG. 10. 4

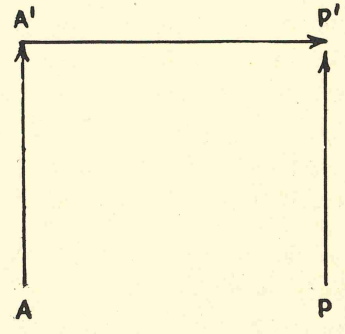


FIG. 10. 5

4. The condition in which the agent and percipient cooperate for success is shown in Figure 5.

Summing up, I believe that conditions 1 and 2 give few results. There are no comparative statistics for conditions 3 and 4, but in a few cases in my work, when the agent did not concentrate, the experiments succeeded in about one out of every two trials. However, we must not draw absolute conclusions, for certain trials have already proved that the agent's concentration may be useful, though it is not indispensable.

Comparative Transmission of Impressions, Sensations, and Ideas

A. *Kinesthetic impressions and tactile sensations.*

As I have concerned myself chiefly with visual phenomena, my experience with tactile sensations is quite limited. However, we have obtained several transmissions of posture. It seems that these are produced with difficulty, because of lack of clarity in descriptive terms. In one experiment, when the agent was in a crouching position, the percipient reported, "He has a contracted attitude, he is not lying down. I do not believe that he is standing. Perhaps he is seated, or, more likely, *crouching.*"

In the series with Jaques, when we tried particularly to transmit attitudes, there were several curious cases, which seemed to prove that it is indeed the kinesthetic image, the tactile sensation, that is transmitted, and not the thought attached to it.

Other experimenters have succeeded in transmitting pain, and gustatory, olfactory, and auditory sensations. Abramowski in *Le Subconscient normal,* tells of the transmission of a state of somnolence. But he believes that transmission of a movement of one finger, for example, is more difficult than that of words, a subject in which he is particularly engrossed. On the whole, I do not believe that many of the experimenters can have noticed this type of transmission, and yet it appears to me to be one of the most common.[3]

Kinesthetic sensations are the most important elements of the subconscious. It is toward them that all its attention is turned. They are the touchstones of the health of the body.

[3] Hubert Wales, in 1917, established the fact that Miss Samuels, in London, received daily the sensations of various discomforts experienced by a soldier named Fuller at the French front. *Proceedings of the S.P.R.,* 1921, p. 124.

During sleep they produce pathological dreams, these nightmares sometimes enabling physicians to diagnose an imminent malady.

In my opinion, telepathy, having its origin in the subconscious, easily carries kinesthetic sensations.

B. *Visual Sensations.*

1. *Scenes.* I cite one case of voluntary transmission of this type, involving a complicated scene. The agent thought of a scene in a theater showing a working-people's neighborhood. The percipient received an impression of stage scenes, workmen, poor people, a monument resembling a theater, and of imitation and artificiality.

An experiment published by Usher and Burt shows that a percipient once had knowledge of a scene in a brewery, where the agent had been before the experiment.

Helen Verrall has also observed that the environment in which the agent lives is more clearly perceived than the words he wishes to transmit.

2. *Objects.* In one experiment of ours a newspaper was transmitted very successfully.

3. *Colors.* I have found nothing of importance in the transmission of colors in the reports of other experimenters. I shall give an example of our own work in this field.

In this experiment, M. Archat was to replace the red glass of a photographer's lamp with one of the following colors chosen by chance: dead white, violet, indigo, blue, deep green, light green, yellow, deep yellow. Mlle. T. was detailed to take notes beside Archat. I, as percipient, was in another room, separated from the first by a closed passage. There were three absolute successes, the colors of light green, blue,

and dark green being used. There was one partial success when violet was used, and one failure, with the yellow.

Although one experiment like this is entirely insufficient, I believe I should tell of a very remarkable unpublished case of spontaneous telepathic transmission of colors. We shall see that the phenomena of spontaneous contrast are perhaps due to coincidence, or to the fact that one of the two agents was color-blind. I secured the data on the case myself, from both the agents and the percipient.

G., a painter, knew that his friends, T. and Mme. C., intended to go to the opera to see the Russian Ballet, some night during one week in January, 1920. He did not know the exact evening. One night, having gone to bed early, he was awakened suddenly with a clear vision of a stage scene in his mind. The setting showed green draperies, embroidered with dragons in a metallic violet. One of the characters was armored and helmeted with the same metallic violet, and drew about him a cloak of the same embroidered green cloth. The scene was seen as if from above and to the right.

That same evening, at the Ballet, T. and Mme. C. had been seated quite high up and at the right, and had witnessed that scene, action by action. But the drapery, instead of being green with violet embroidery, was red with gold embroidery, and the character was helmeted and armored with gold. G., having since then had an opportunity to see a photograph of that scene, certified that all the details corresponded to his vision. G., the percipient, T., and Mme. C. are all sensitives, gifted with paranormal faculties. Not one of them is color-blind, but T. frequently has after-images of contrasting color.

Two hypotheses are possible. Either T. and Mme. C., the unconscious agents, had transmitted the message in natural colors and the complementary colors appeared only in reception, or else the complementary colors were created in the

subconscious of the agents before transmission. At first sight, we are struck by the physical analogy with positives and negatives in photography, in which the black becomes white and the white black; but in photography the image too is reversed, the right appearing to the left and the left to the right. That is not the case here.

There are two principal theories to explain the normal phenomena of color contrasts, whether successive or simultaneous. These are the physiological and the psychological theories. The latter has its protagonists among the psychologists, who attribute many phenomena to association. Paulhan submits that it is a particular case of association by contrast, that the idea of white attracts that of black. Meyer was sure that he could think hard enough of one color to have an after-image when he opened his eyes. Binet and Féré observed that the persistent idea of brilliant colors develops an after-image of complementary color. Colsenet, in *La Vie inconsciente de l'esprit,* cites numerous experiments by Helmholtz on the phenomena of contrast, and experiments by Delboeuf; he concludes that these phenomena are due to a psychological cause, to an involuntary and unconscious judgment.

The physiological theory has been developed by Rosenstiehl in particular. For him, color is a sensation. He attributes the color of light rays to their action on the retina. "The rays themselves are not red, but their action on the retina produces the sensation of red." Chevreul has devoted a work of seven hundred pages to a study of contrasts. In his opinion, the cause is due to a property of the eye that can be formulated as follows: "As soon as the eye has fixed one color, it becomes blind for that one and is then inclined to see an opposite color." The retina, fatigued by red, is no longer impressed except by its complementary color, green.

Recent experiments have complicated the problem. Shel-

ford Bidwell, carrying on research using colored tops, has shown that it is easy enough to see a painting — for example, a rose, red with green leaves — in exactly complementary colors, so that a green rose with red leaves is seen. This is done by lighting it intermittently.

In conclusion, the physical theory of the real existence of color having been abandoned, the physiological theory appears to be menaced by the psychological theory and by recent experimental work. However, experiments have shown that it is not yet possible to make any definite pronouncement. Be that as it may, the fact of the existence of the phenomena of contrast in telepathic transmission deserves attention. I hope that it will simplify, rather than complicate, the theories about these phenomena, now so controversial.

C. *Transmission of Words, Figures, and Numbers.*

Except in three experiments, words have not been voluntarily transmitted in our work. Abramowski, chiefly, has cleared up the problems involved in the involuntary type of transmission. In *Le Subconscient normal* he concludes that concrete nouns are transmitted better than proper names, abstract words, or numbers. He cites successes as follows: proper names, 37 per cent; concrete nouns, 63 per cent; figures, 48 per cent; abstractions, 48 per cent. A word *itself* is rarely transmitted; synonyms for it, and its related emotional feelings, are transmitted more often. He cites the case of verbal association which we have previously mentioned.

"At the time of suggestion of the forgotten word *dents* (teeth) there was at first the tantalizing feeling of a word beginning with a D, then the following images: an eye, wings, wings of a butterfly, then *dentelées* (perforated), image of lace (*dentelle*), and finally the word *dents*."

According to Abramowski, the more interesting, emotional, and concrete a subject is, the more easily it is transmitted. Cards and numbers are difficult.

D. *Transmission of Mental Images.*

This is, on the whole, the real transmission of thought. Contrary to what we should have thought, it is, in our opinion, extremely rare. There are few cases in the findings of most experimenters. Carl du Prel, however, working with a hypnotized subject, Lina, secured one absolutely remarkable transmission of a poem, transmitted by reading at a distance in a low voice. It was not by the words that it was transmitted, but by the series of images that it evoked, and by the meaning, the idea.

E. *Transmission of Memories.*

In one experiment, the agent had seen on the cover of a magazine a sort of monument, like a triumphal arch — a colonnade with a façade bearing the title in large letters, "The Nation's Pictures." The magazine contained paintings, of which one was a marine.

The percipient saw a monument, some English words written on a monument, and a marine painting. This class of transmission is the most frequent in telepathic experiments, but, unfortunately the least convincing.

F. *Transmission of States of Mind.*

Except for one very successful experiment outside the series, I have not tried this type of transmission experimentally. But Osty, in *Lucidité et intuition,* cites a number of these cases.

"Mme. M. is not a good telepathic percipient, for she perceives only the state of mind, the super-rational thought." And, "Mme. F. is an admirable mirror of the state of mind."

G. *Transmission of Idea.*

This type of transmission is clearly evident in one experiment in which the agent attempted to transmit the idea of Socrates, and the percipient received a Doric edifice, that is, the idea of Greece, and at the same time the image of an old man with white hair and beard.

Abramowski has found that the voluntary transmission of a word is more often accompanied by an associated image, than is the involuntary transmission of a word. In his experiments, he obtained eight exact responses, seventeen resemblances to the emotional image accompanying the word, four resemblances to the contents of the word, and eight resemblances affected by the letters composing the word.

Lodge found that an idea is more easily transmitted than a drawing. For example, a tetrahedron provoked a drawing of a triangle; but as soon as the agent thought of pyramids, the percipient pronounced the word. I believe that sensations transmit most easily.

Richonnier says that it is not necessary to make any effort to practice the emission of thought. It is not necessary to reconstruct mentally, with closed eyes, the image of a playing card. It is enough to look at it. Let us suppose that the gaze of a human being falls upon a familiar object — a shovel, for example. Before the mind can seize the significance of the object, the eye sends the message to the brain. Memory then must come to his aid, as far as naming the object is concerned. He then says that he is looking at a shovel. On the contrary, telepathy concerns itself with images alone, to the reflection of an image, with no regard for the significance of that image.

That is why children, who do not know the meaning of the object at which they are looking, can transmit an image of the object, by telepathy, to a percipient. This experiment has often succeeded, and it establishes the important fact that, in order to send thought successfully, it is necessary only for the transmitter to see clearly the object whose image he wishes to send.

This point cannot be too greatly emphasized, for it refutes the theories, accepted up to the present, that communication is possible only when there is understanding, as between adult and adult. Briefly, according to Richonnier, who is an experimenter as well as a writer, it is at the "center of the sensory impression" that the "telepathic wave" is born, and not at the center of understanding; or, if you wish, the emission is produced in the unconscious region of the mind, before apperception takes place. Therefore he advises the use of a cardboard tube to sight the object before it is transmitted.

Abramowski believes that it is the *idea* which is transmitted. Maxwell, on the contrary, believes that it is the contents of organic consciousness, the physiological traces, the cerebral imprints, serving as a substratum of thought, that are perceived. But he seems to allude to a reading of thought rather than to transmission in the sense in which I use it. He cites a curious example of transmission of a memory-image. A subject perceived a scene having a relation to the agent, and described a very high mantelpiece coming up to the height of the agent's forehead. It was, in reality, a childhood scene, and the fireplace appeared to have grown at the same time as the agent. But this involves a question of "spatial illusion in drawings," which Abramowski has studied. I shall state the theory briefly by saying that the memory-image always appears larger than the object which produced the impression. The difficulty of reconciling this apparent transmission of ideas with

that of fragments of images or of scenes in which not a trace of the idea transmitted is found, has struck all experimenters as a knotty problem.

Can we truthfully say that when thought transmits itself it is the *idea* which is transmitted? That seems true in spontaneous cases of telepathy. Dissociation of the messages may be more frequent in experimental cases, but it also exists in spontaneous cases when transmission is difficult. The more frequently fragmentation appears due to the percipient, the more it is due to a defect in his paranormal perception. In conclusion, it would seem necessary to know how the agent has thought about the message to be transmitted, but the laboratory of thought remains always in impenetrable obscurity. If it is true that we think with images, very few of them are truly accounted for. We are almost always in the position of a man hunting a book in his library, who at first glance sees it and picks it out. But sometimes we do not find the needed word or image at once. It does not come to our thoughts. The latter case is the more interesting, because it gives us information about the way we are thinking. One moment of waiting, and the word, or the book, comes forth by itself. Our manner of thinking is like Nero's fishing as told in the classic tale. The empress, knowing beforehand when he was going to fish, sent a diver to attach the coveted fish to the hook. When we think, we angle in our unconscious, and it is there that an unknown diver puts the desired words on our hook. It is not a simple voluntary mechanism which brings the word to us, for the more we search for it, the more it escapes us. There is an accomplice who transmits when he can. Who is this *deus ex machina* except ourselves on another level of consciousness?

Is it he, too, who transmits our telepathic messages when he can? Mental images, above all those of our dreams, re-

semble actors in a pantomime, more or less painted or masked. The spectator, the normal conscious, understands, to a certain degree, the part that the accomplice wishes to play for him, but he may have other methods of expressing himself than with puppets. Now let us go behind the scenes. We find here neither words nor images, but the emotional states which produce them. Abramowski calls their subconscious reduction "un-intellectual." The conclusions of this experimenter are very interesting to me because they are so absolutely identical with my own, although his field of work and methods used are far different. I quote from his *Le Subconscient normal:* "What is transmitted is the affective state of the agent, and not the representation, followed by some individual elements of the agent's representation," or, as I would express it, the affective state belonging to the separate elements of that representation.

CHAPTER XI

The Relation of Telepathy to the Subconscious and the Unconscious

SINCE the beginning of parapsychological experimentation, it has been evident that success in telepathy is not obtained by willing, and that very often what the percipient receives is not what the agent tried to transmit. What is not transmitted is not, however, non-transmissible. It is rather a question of the idiosyncrasy of the percipient, and probably of the agent as well.

Let us consider the different mental strata, and their classification into the unconscious, conscious, subconscious, and paraconscious levels. Our conscious psychic life has very narrow limits, but we need not think that everything is either unconscious or conscious. For example, I am not conscious of my neighbor, but I have no right to treat him as unconscious. There is simply no communication.

THE UNCONSCIOUS

I shall apply the term "unconscious" to the organic substratum of our mind. The photographic plate and the phonograph record are unconscious; that permits of no doubt. If these have an equivalent in the brain, that alone may be called unconscious. We know nothing at all of its existence

because a memory cannot be unconscious. A function is either conscious, as in the normal state of waking life, or subconscious, as in the normal state of sleep, or rather the dreaming which goes on even while we are awake.

The unconscious is a world which we can imagine as we imagine that of atoms or electrons, but it is absolutely foreign to the life of the mind, which is always, by definition, conscious, or subconscious – that is, at a level of consciousness which may be different from our own and foreign to it like the personality of a friend. In short, we understand well enough what the unconscious can be and, above all, what it cannot be. The unconscious is the shell of the mind.

THE CONSCIOUS

In my opinion, consciousness exists only when the mind applies itself to something, as to a sensation or a memory-image. When the mind is applied to nothing, interested in nothing, it is as if non-existent. It is not conscious. If sensory impressions were purely cerebral, they would always be unconscious; but a faculty of what we call the mind, namely, psychic attention, seems to turn itself upon these impressions, illuminating them with a certain psychic charge. Consciousness is the light which flashes between "mind" and "matter."

THE SUBCONSCIOUS

It is easy to see that the psychic world does not terminate at this point. When, in a waking state, one becomes aware that he has forgotten something, or has a word "on the tip of his tongue," he concludes that this memory exists somewhere, and that the consciousness is different from the memory. Nevertheless, it seems to have a certain awareness of its own existence. (A memory which was unconscious would not be

a memory.) But its state of consciousness is not the same as ours. A moment later, however, it comes into consciousness because, in the darkness of the personality, a psychic charge has been directed upon it which gives it the necessary degree of illumination. This common experience shows us that subconscious states exist, even in the normal waking condition. We all know, also, those infinitely complex pictures, complex scenarios, or admirably made-up actors that come to us every night in the theater of our dreams. We know also that the impressions to which psychic attention is partially devoted (often bodily sensations) can form secondary personalities in the mind, alter-egos which may have psychic charges so different that they are in communication neither with one another nor with the ordinary conscious ego. There are subconscious sensations which provoke subconscious thoughts, sometimes forming subconscious personalities which struggle for their precarious psychic existence, at the same time causing disturbance of the conscious personality.

Attention, that lively force, that vital power, is something with which the mind must be frugal. Like an electric charge it can spread or be condensed; but when the condensation is made at one place, there is rarefaction at another. The more attention there is at one point, the more one is conscious of that point, and the more one is unconscious at others.

The Paraconscious

When attention is given to impressions which do not belong to the domain of our known senses, the mind becomes conscious of them and sometimes communicates to us these paranormal perceptions. This is the world of the superconscious, as Jules Bois excellently describes it.[1] "There is more

[1] *Revue de Psychothérapie,* July, 1927.

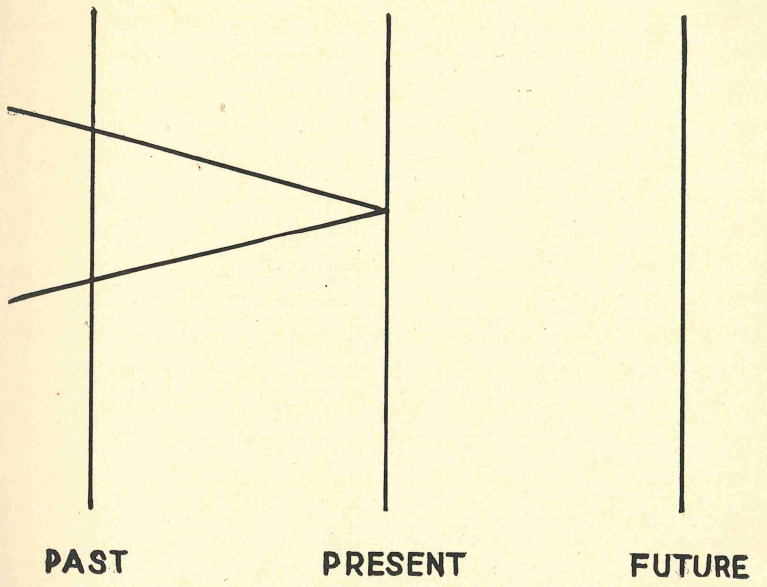


FIG. 11. 1

in us than the refuse of our personalities, the world of the forgotten, and the repressed." It may, in fact, be maintained that, in the depths of ourselves, the paraconscious governs at the same time both our bodies and our minds.

We therefore distinguish four mental levels: those of the unconscious, the conscious, the subconscious, and the paraconscious; and we are going to try to picture them to ourselves, that is, to place them in space, since only by a diagram can we make our thought clear. I shall even indicate time zones. Is not everything permissible to the "empirical investigators of the inner world"? In our diagram, past, present, and future time will be represented by vertical parallel lines (Figure1). A living creature, in particular a human being,

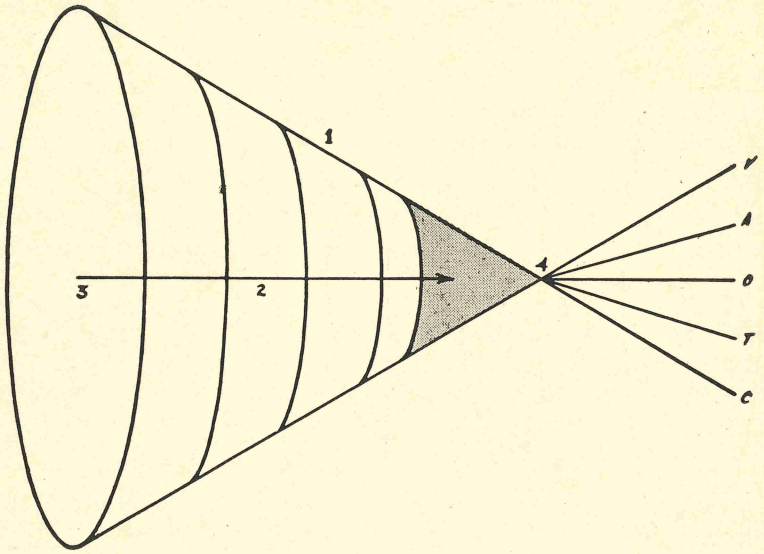


FIG. 11. 2

will be represented by a horizontal cone moving through these belts of time.

On the surface of the moving cone, these zones form superficial cerebral traces, whereas the interior of the cone is purely psychic; it corresponds to the strata of memory.

Consciousness never exists except at the "point of the mind," to use the happy expression of Kaploun. Consciousness remains, as I see it, "the bond of the sheaf of sensations" schematically represented in Figure 2. The modalities of sensations are indicated by *V*, visual; *A*, auditory; *O*, olfactory; *T*, tactual; and *C*, coenesthetic, or bodily. The concept of arrangement of mental stages in the waking state will be greatly facilitated by this chart. The unconscious (designated by 1 in the diagram) is the envelope of the mind, that which gives it individuality. From the organic point of view, it is

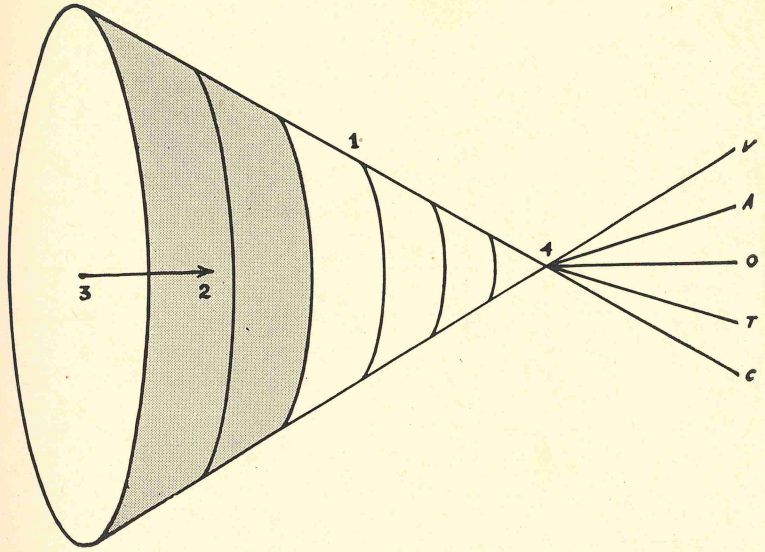


FIG. 11. 3

everything. From the psychical point of view, the unconscious has only the width of a geometrical line. The subconscious (2) holds the chief place, and attention (3) pushes on constantly toward the point of consciousness (4). On the almost complete disappearance of sensations, concern with life decreases, consciousness disappears from the superficial strata of memory and continues in the deeper strata only (Figure 3). This is forgetfulness and sleep, with its dreams; it corresponds as it becomes more profound, to memories of infancy. As Vaschide says: "The deeper the sleep, the more the dreams are concerned with the earlier part of existence, and the more they are removed from reality . . . the more superficial it is, the more the sensations of the day appear, and the more it reflects the preoccupations and emotions of the preceding day."

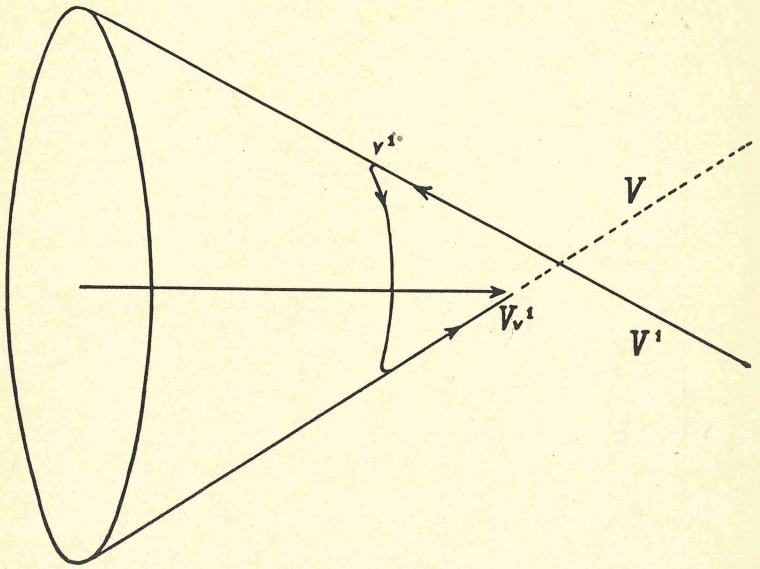


FIG. 11. 4

Freud, in his *Introduction to Psychoanalysis,* goes still further. "We immerse ourselves again in the intra-uterine conditions of our existence. Some persons give their bodies in sleep an analogous posture."

Now let us try to find out whether this diagram can explain certain anomalies of mental action; for example, what takes place in us when attention relaxes during the waking state, without diminution of sensation? We have said that the attention fatigues quickly and can rarely focus on several mental strata at once. Usually it is turned, as in Figure 4, toward a single present sensation, to the exclusion of others (V). These latter (V^1) infiltrate little by little into the memory, arousing associated ideas (v^1) and curious illusions (Vv^1). Dreams in the waking state, caused by objects or sensations

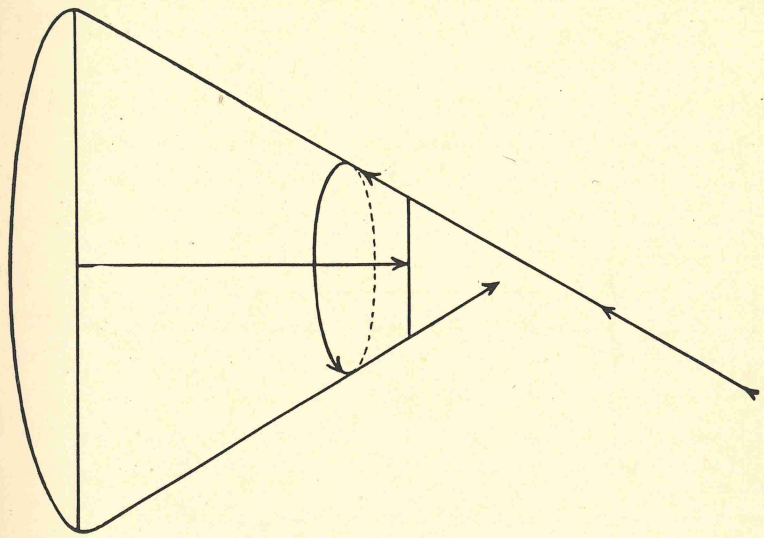


FIG. 11. 5

only partially perceived, sometimes emerge into consciousness. We have all observed them as impressions at the limits of visibility, confused or isolated, like those of frightened children who think they see men hidden where there are only twisted roots in the evening twilight. In this case, the external circuit is complete. Malobservation leads to sensation charged with unconscious memory elements.

If attention is occupied, not by sensations, but by intellectual imagination (see Figure 5), one may find oneself humming an air and, upon recalling attention to the external world, hear this air being whistled in the street. The unconscious auditory sensation has evoked an automatism in order to get attention.

This shows that that which is "poorly perceived," as a result of lack of attention, penetrates farther into the uncon-

scious than that which is attentively perceived, because it goes as far as it can to search for a psychic accord which will permit it to come to life, that is, to become conscious. It is therefore perfectly fitted to reanimate a forgotten memory, and consequently to penetrate more deeply into the obscure regions of the mind.

Before going further, let us see if we are taking a false route, and let us stop a minute at this schematic notion of the unconscious. In order to produce the "poorly perceived" experimentally, I tried to give my whole attention to a very large object so that another and very small one had to withdraw gradually into the unconscious. I therefore repeated the experiments by Scripture on the association of ideas, adapting them to the present investigation, but without great success. The procedure which has given me the best results has been to make the impression so confused that it cannot immediately become conscious. We know what happens when, without specially noting the fact, we look at spots on the wall or at clouds. Imagination completes the material given incompletely by perception. Some psychoanalysts utilize the procedure methodically by showing the patient blots of ink, and asking him to use his imagination to find definite images in them. This is an excellent means of exploring the unconscious.

Nevertheless, I wanted to get a little closer to the problem by arousing the imagination, not through blots, which might evoke more or less interpretable outlines, but through the use of perfectly clear words. I used the old method of crystal-gazing. We know, on the one hand, that the fixation of the bright points on the surface of the ball is well suited for the creation of secondary states, and, on the other hand, that

reflections from the surroundings usually form the substratum of the images evoked. The novelty of my procedure consists entirely in the use of known reflections, such as reflections of the letters in written matter already selected.

There is no need for special apparatus. A few books make a convenient support for the ball; and if we place a ball of rock crystal appropriately illuminated, in front of a sheet of paper bearing printed words, or even an open book, we may easily see in the ball, on a reduced scale, the image of the page and the words. By increasing the distance of the page from the ball and reducing the illumination, it is easy to bring the printed characters below the limit of visibility for any given subject. It is indispensable that the characters should be illegible, otherwise the phenomenon will not occur. Care must be exercised with persons having extremely acute vision.

If the required conditions are obtained, one is surprised to see how easy it is to evoke experimentally the recent memories of the crystal gazer. Often the words pronounced by him as he reads have no apparent relation to those of the text behind the ball. Yet it is extremely interesting to perfect this technique by suppressing the meaning in the words which serve as inductors. For example, using a text typed at random and made up of letters so as to look like words, one obtains remarkable results. Let us add at once that the effect is obtained with ease only when the text is seen in the ball. In direct vision, at a distance sufficient to bring the text to the limit of visibility, or when words recorded by microphotography are used, the phenomenon does not appear in its full form. Below in column 2 are the words I thought I read in the ball while using the letters given in column 1.

The words correspond for the most part to unconscious

associations with recent memory impressions.

AXWZS EDC REVICB	FRIVOLITE TRAVAILLEURS
YRSOZ TBQZ PNOL IK	VIOLETTE CAOUTCHOUC
UJNYHBSTC VRSC EDX	CULTURE ATLANTE JOFFRE
ACQVZEJ EK CRF VTBGTGN	ATELIER PIERRE EXEMPT
UJIK OI AQUZ	D'IMPOTS GRATUITE CHEF
GXFDCRVTCB YHNVJ IKOL	TELEGRAPHIE JAPONAIS

I asked myself whether these associations were fortuitous, or if they had a certain finality. The next day I took up the same piece of paper and looked into the ball; but this time I thought of my friend L., a poet interested in psychic matters. These were the words which I seemed to see in the ball: *Printemps, Ivry, Élan, Attention, Existence, Émeraude, Exécution, Elle, Henri IV, Fantôme, Exécution, Opium, Catulle-Mendès, Napoléon.*

I repeat that this was the same paper which had served me the day before in the preceding experiment, in which not a single one of these words had been read. The character of the associations has changed sharply as a result of thinking of my friend L.; they are grouped around the principal idea. Six of the fourteen words had a certain relation to common memories shared with L.; the others arose from personal subconscious preoccupations. I conclude from this that the associations arose in a zone bathed by my personality. We may no longer call "unconscious" a psychic zone in which consciousness shows some degree of activity. Consequently it is through the "subconscious" that the circuit is established in the phenomenon described; that is, not in this case by the cerebral traces of the memory, but by its psychic factor.

The search for a forgotten name is like the preceding experiment. One day at breakfast, my eyes fell upon a piece

of paper. I read there a name which I had tried in vain to recall the day before. Then I saw that the paper actually bore not the desired name but the word Phoscao. We must admit that there was within me not only the unconscious cerebral trace aroused by chance through an association by similarity, but a latent consciousness aroused by the opportunity to reveal this lost name. This is the subconscious. We are always, however, restrained within a small compass; we do not depart from normal personality. In following the facts concerning the poorly perceived, we have encountered the unconscious, and the subconscious which reveals itself to consciousness. Is that all? We might ask what would happen if a sensory impression never became conscious, if an instance of faulty perception never came back to its starting point, either directly, by means of the unconscious, or by means of the subconscious after traversing the strata of memory. We all know that these weak impressions of the day are held captive by our subconscious, looking for vital elements; they frequently make the framework of our dreams. But if there is no secondary ego in formation – for example, if in the normal waking state a faulty perception is wandering and coming nearer and nearer to limits of existence, that is, to the unconscious – then what happens?

It is the task of experiment to tell us, for we realize this state every time we try to send a telepathic message, and it is in this particular case, above all, that that happens. The more one directs his attention to an object, the more the objects which surround it are poorly perceived, and frequently they are what comes through to the percipient. The faulty perception makes it escape from the personality, or rather, it is the bearer of psychic charges capable of being perceived by telepathic percipients.

Telepathy of the Poorly Perceived

It is interesting to reread the first French experiments[2] in telepathy, published by Dariex. D., the percipient, wrote to H., 170 kilometers distant, "At eleven o'clock I received the impression of a puppet. It seemed to me that you were trying to show me a little pasteboard man with cords to move his arms and legs. Then at 11:15, black silhouette, a little black figure which you had cut out."

H. (agent) wrote: "A decanter filled with water was selected for our experiment. But ten centimeters distant from the decanter, hanging on the wall, was a black puppet of the sort which you described, belonging to my daughter. It was a second choice, but hardly second, since I had intended to send you the image of the puppet before choosing that of the decanter. How strange, how bizarre this is! It would be rather amusing to set the experts on the track of such reflex phases of telepathy. I was not thinking the least in the world about the puppet."

Dariex adds that in the experiments made the previous year by the same persons, the percipient got the impression of other objects near the image to be transmitted, which were almost under the agent's eye, and that there seem to be in these cases some unconscious telepathic repercussions. Compare the opinion of these first researchers in 1893 with that of Roux and Moutier, as stated at the Third International Congress of Psychical Research, in 1928: "We even believe, on the basis of a respectable number of experiments, that the conscious thought of a person whom one is trying to follow telepathically, far from facilitating success, modifies or prevents it . . . nearly always, if not always. The percipient receives a detail in the surroundings, which had indeed struck

[2] *A.S.P.*, 1893, p. 114.

the eye of the agent but was not consciously noted. An impression which is almost unconscious, perceived without interpretation – that is what is easily transmitted."

It would be easy to point out identical findings in my own published cases, but I present here some new ones. I have tried to bring them about experimentally. This seems something of a contradiction, for it is difficult to perceive badly by intention.

1. I, as agent, stood in the office of the *Institut,* trying to transmit two objects at once, one of which had a more favorable place in my mind than the other. I stood on my right leg, holding the other bent. Not wishing to think of my position, I was concentrating upon the memory of a journey, a stirring visit to the crypt of the Church of St. Michel of Bordeaux, which was filled with mummies. Fatigue called me back to physical reality. An association of ideas with my posture surged past the threshold of my consciousness. I thought of a flamingo. Then I resumed concentration upon the previous thought. Among the percipients in the laboratory, De. thought at first of a pelican, then of an ibis, a leg bent like that of a flamingo. No one received the idea of the mummies.

2. I acted as agent in the laboratory of the *Institut.* Holding in my right hand a metallic envelope made of galvanized iron wire for an electric lamp, I pressed the metal wire forcibly against my skin, leaving a mark there. From time to time I renewed the contact, bearing down on one wire or another. But at the same time I placed a big black 5 against a brightly illuminated white background, and fixated it steadily to transmit it to the percipients in another room. Bo. reported, "I see, in a dim light, bars, perhaps metallic, which descend slowly one after another. One bar goes down

twenty centimeters. It is pearly white. Then it disappears, another comes to take its place."

3. Acting as agent, I looked directly at a drawing of an Egyptian sarcophagus, but at the side I saw indirectly an image which De. was projecting on a screen. Little by little, I turned more and more toward this screen in an attempt to see the projection from the side, but without removing my eyes from the drawing. First, I thought I saw a point with multiple rays emerging. Second, still burning, I saw a sheaf of lines converging to a point, the idea of a comet. Third, at last I discovered the slot, while looking directly at the projection. It was a comet which had been projected.

Of the percipients, two made drawings which corresponded to the sarcophagus, and five made drawings which might be related to the comet projection. For example, A. drew a little black rectangle surrounded by multiple rays; and the perceptions of Mlle. B. corresponded to the moment when part of the object fell directly under my gaze and not when I saw it from the side. This shows that the poorly perceived must nevertheless form a clear retinal image, or it will not be transmitted.

4. Under a bright light, I placed a colored image, a caricature from the periodical *Simplicissimus;* see Figure 6 (a). It represented, on the left, a German political candidate holding in his left hand the flags of all parties, and shaking hands across the electoral urn with an elector in the form of a donkey. But by means of a cardboard tube, a telepascope, I isolated the circled part of the figure and visually fixated it for ten minutes, to the exclusion of everything else. I wished to study the respective rôles of clairvoyance and of telepathy in cases of the poorly perceived. But I was looking at the figure without seeing it, for I was concentrating my whole

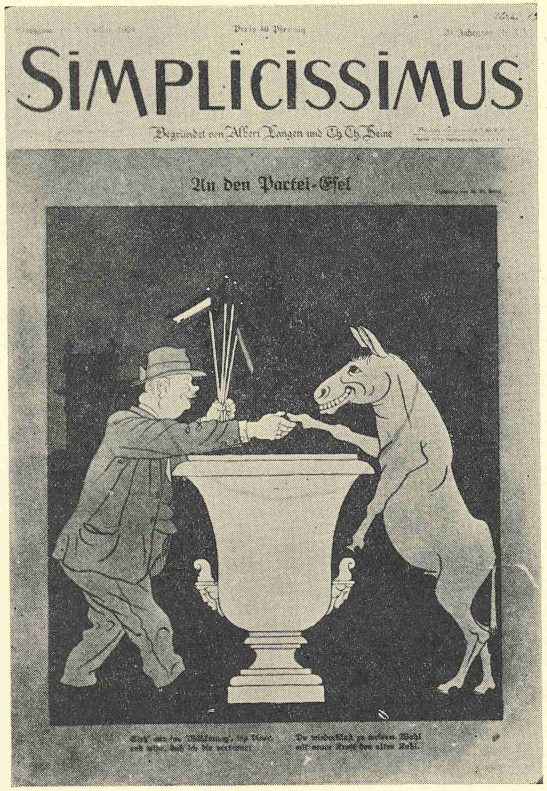


FIG. 11. 6 (a)

attention upon one of the percipients, who were in another room. This percipient, B., made the drawing shown in Figure 6 (b), and wrote, "Drawing No. 3 gave rise to the idea of an ox, but not an ordinary ox, and the remainder represents ears." Bo., the other percipient, upon whom I did not concentrate at all, described "an umbrella frame, but showing only its ribs, and rotating, then a cavalier leaping over an

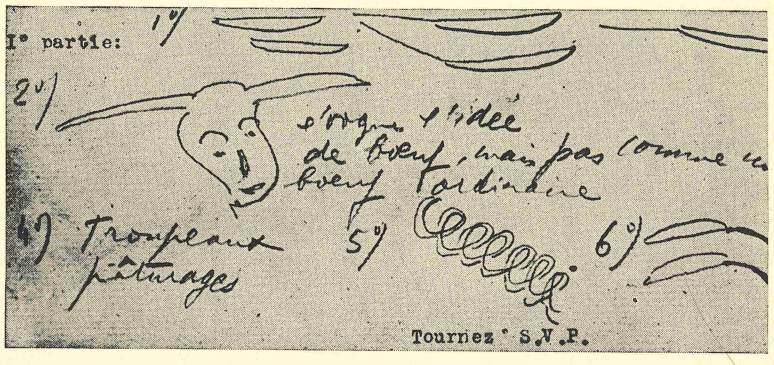


FIG. 11. 6 (b)

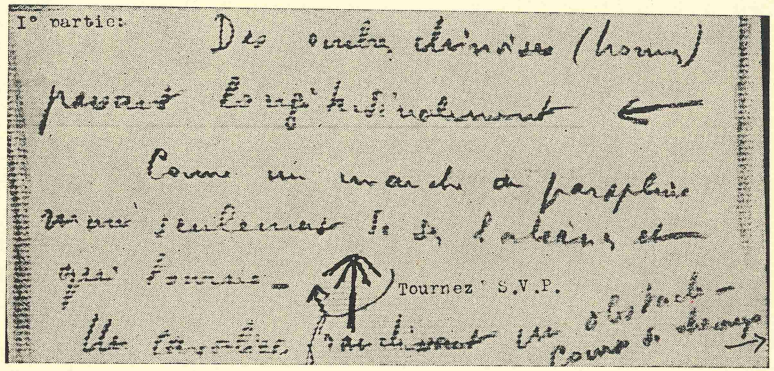


FIG. 11. 6 (b′)

obstacle." See Figure 6 (b′). Thus B. saw, it seems, a fragment of the image which I was especially fixating — the donkey's ears — without understanding it. Bo. saw the candidate's sheaf of flags and the attitude of the donkey, without understanding their significance. Neither one saw that the experiment had to do with a German periodical, the title of which was outside my visual field.

I should add in what state of consciousness I found myself during the experiment. Though awake, I saw the

image as in a dream, for, as I have said, my attention was concentrated on one of the percipients, not on the image. There was even formed in my mind a sort of illusion about a dome in the background, which seemed to me to resemble a Buddha. This was not received by the percipients. It would appear that when a person pays no attention to an impression which he receives, this impression may become conscious to a telepathic percipient.

Telepathy of the Recently Forgotten

The poorly perceived is not simply one form of the recently forgotten. I have an important distinction to make, which has been forced upon me by experience. The reader will see that in the preceding cases the fragmentation of the messages is extreme. This seems to be a characteristic of transmission by the unconscious. In telepathy of the recently forgotten, our concern is with impressions which have been conscious for a moment (which seems to have been the case with H.'s puppet). It is characterized by transmission without any fragmentation, as are unconscious memories in the studies of telepaths. This brings to mind M. de Sainville's conclusions[3] presented at one of the earlier meetings.

I have not observed that the aspect of the transmitted image, from the point of view of objectivity or of subjectivity, depends on the agent's condition of sending. Thus far this aspect seems to me due entirely to physiological causes in the percipient, such as activity of the optical center or attachment of the mental images to retinal phosphenes. De Sainville, on the other hand, thinks that it is in the passage from the superconscious of the percipient to his conscious that fragmentation occurs. I do not believe that this is the rule; and I wish

[3] *Quelques perceptions supranormales, Revue Métapsychique,* 1928, p. 319.

to show here that this fragmentation often arises in the departure of the message itself, and that it is due to the agent's condition of sending. Distortion upon arrival, due to the percipient, has rather the symbolic character of the association of ideas. Nevertheless, note that the scheme which I am employing is as applicable to the percipient as to the agent, and in clairvoyance as well as in telepathy. The fragmentation would in this case be due to passage through the unconscious of the agent or the percipient, whereas complete unfragmented perception, with or without a symbolic comprehension, would be brought about by the subconscious.

However that may be, I may, for my part, conclude without departing far from de Sainville's theory that (1) fixation of the object by the agent causes fragmentation of the message, and (2) the subconscious idea of the agent does not cause fragmentation.

In our group experiments we continue to verify these observations.

1. I had decided before a certain meeting to carry out the following experiment with Vi. as percipient: I had associated with his image the drawing of a fountain pen, inclined to one side, as shown in Figure 7 (a). But, finding that he had not come into the laboratory with the other percipients, I gave up my plan and performed another experiment with the other percipients. I looked through a stereoscope at two different images, superposed so as to form a single one: on one side, a geometric image; on the other, an image of a crowd. The result was not clear cut. But during this time, Vi. had joined the group without my knowledge, had received the message which I had previously intended for him, and had made the two drawings of it shown in Figure 7 (b).

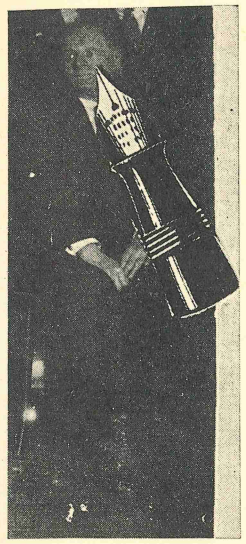


FIG. 11. 7 (a)

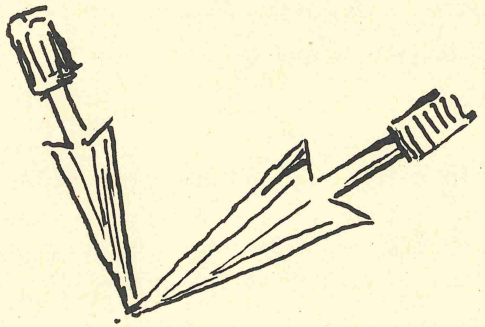


FIG. 11. 7 (b)

2. I had brought a cut-out drawing of a pine tree to use as a message during the meeting; see Figure 8 (a). Before I was able to use it, Bo. acted as agent. He wanted to send the idea of his watch, which he placed near his ear to hear the ticking. "During this experiment," he wrote, "I closed my eyes and

FIG. 11. 8 (a)

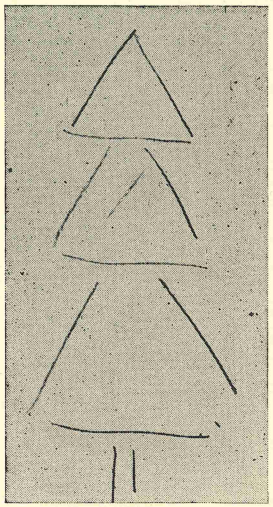


FIG. 11. 8 (b)

visualized Mme. de Z. (a percipient in another room), and I saw fir trees." Mme. de Z. drew these, as in Figure 8 (b), and wrote, "Geometric figures or a coniferous tree."

This did not keep Mlle. S. L., another percipient, from receiving Bo.'s message. She wrote, "The idea of a curved steel blade, a little red ball in the middle of a rotating white disk. Movement." This was the inside of Bo.'s watch case.

In this experiment we observe transmission at different mental levels. Mme. de Z. perceived an image existing in the subconscious. Bo. perceived what Mme. de Z. drew. Mlle. S. L. perceived what Bo. intended to transmit, but perceived it fragmentarily. This seems to me to show transmission

through the unconscious of Bo., who was distracted by his own receptive vision.

3. I tried to transmit to Bo. an image already broken up into its elements, an image at which I was looking through a tube, while especially fixating the central non-fragmented image, a sailor. During the fixation, an optical illusion resulting from retinal fatigue caused me to see something like the arms of a St. Andrew's cross, or an inverted anchor on the collar of the sailor's fragmented picture. Naturally this impression was not grasped by the percipients. Mlle. Ti. reported the head of a Chinese, and a square box of the kind in which Chinese prisoners are shut up, which allows only their heads to appear. Bu. wrote, "(1) Soldier in an old-fashioned uniform; (2) windmill or commutator; (3) angel's wings." Mme. de Z. reported, "The face of a die with the cube not seen as a whole; lines." The lines she drew had a schematic resemblance to the upper part of the image.

In this case we find fragmentary perception of images, badly seen because of fixation upon the center. Above all, in the case of Mme. de Z., we have the extraordinarily exact perception of what I had recently forgotten. I had brought for the meeting a juggler's die, a large one, which I wished to send as a message. I intended to look at only one face through the cardboard tube in order to see whether the percipients would see the face fixated, or another one. It was this personal idea, which of course I had not mentioned, which evoked, by subconscious transmission, the image of one face of the die seen from the side. The cube was not perceived as a whole. This is indeed a case of transmission by the subconscious, for it is a conception belonging to intellect and memory. Here is transmission at two mental levels, the unconscious and the subconscious, displaying their respective

characteristics, namely, fragmentation and perfect transmission.

4. As a message to de Sainville, Bo. and I sent the projection of a motion picture film concerned with the ordinary dances of the upper Niger – Negro dancers upon stilts, with much jumping and whirling. De Sainville, who of course did not know that we were using a motion picture film, and who was 125 kilometers away, wrote: "(1) Appearance of a luminous white cloudiness, approximately square (screen?). From this emerges a sort of man's head, then an elephant's head, next an oriental's head, then several heads mixed up together without being sharply defined [all these details were symbolic except the last]. Then a sort of tulip of light, and at the center of the opening a short, blackish tube (the projector?). (2) A luminous cloudiness, etc., and (3) black zigzags in space; from them emerges a black frog moving, shaking its legs; . . . several heads confused together; chaotic matter."

According to our experience, nothing is harder for a percipient to perceive than this type of message; but de Sainville certainly saw, without understanding it, the screen and the motion picture projector. Better still, he perceived, with perfect distinctness, something which we had recently forgotten, namely, the projection which we had previously made several times, and which had forcibly impressed our minds because we wished to make of it the particularly striking message of the "frog who wished to make himself as big as an ox." We had spoken to no one of this, and were not thinking of it at the time of the projection of the dancers upon stilts who were not distinctly perceived by de Sainville.

Nevertheless, an hour afterward, during the projection of another motion picture film, Mlle. C., a percipient who had

not been present at the beginning of the meeting, received the image of "stilts throwing a shadow upon the sand." That was a fragment of a perfectly precise image which we had recently forgotten.

The more the conscious attention of the agent is fixed on an image, the more the pushing back of a subconscious image is facilitated. Motion pictures lend themselves easily to these observations, since the lack of attention to some perceptions may be made up for by too much attention to others.

Telepathy of the Conscious

Must we then despair of ever being able to transmit what we wish? Perhaps the simplest method in trying to answer this question is to think actively of a percipient while fixating an object without giving attention to it. For this purpose we built an isolating cabinet, consisting of a screen with three movable panels, together with a telepascope (cardboard tube), permitting the agent to remain in darkness while looking at a well-illuminated object which could be lighted steadily or intermittently. (It is to be noted that at the time when the screen was being made, although I had not yet spoken to anyone about it because I wanted to make use of it as a surprise, Mlle. T. drew, in the course of an experiment, a screen with three open panels.) By means of this practical apparatus, we obtained a series of good experiments, of which I shall cite four, performed under varying conditions.

1. The agent, M. J. C., in the isolator, drew and looked at "Saturn and his rings." Bo., a percipient, made a series of drawings of broken ellipses, in which the phenomenon of fragmentation was evident. It was as if the retinal images were transmitted at the very moment when the agent's gaze

jumped from one detail to another. The idea of rotation arrived alone through the subconscious. The details in one part of his drawing were particularly striking, and were characteristic of the transmission of elementary psychic charges through the unconscious. Inversion and an absolute lack of comprehension of the message were evident in this part.

2. I placed before the telepascope-isolator a colored postcard; half of the lower part of the card showed a field of snow flowers, and on the upper part there were tree trunks in alignment. In addition, in a corner at the left, I added an irrelevant image, a paper cut out to represent a conventionalized boat. This was done in order to ascertain whether the percipient would perceive all that was to be seen on the card, or only what I wished him to see. During the five minutes' duration of the experiment, I steadily fixed the upper part of the card, the tree trunks; but I fixated in a special way, without thinking about it in particular. I turned my attention in upon itself, concentrating it upon memories of forests, imagining myself to be passing through a forest of pines.

In another room, Bo., one of the percipients, wrote, "Trees, a poplar in the foreground, then a field of corn, straight vertical stems. I think it has something to do with a landscape in which something like planted trees are to be observed." We must note that he did not get the idea of a forest of pines; consequently he did not see into my memory, but saw again, through my unconscious, a purely retinal impression.

3. I decided to look through the telepascope-isolator at a cut-out drawing representing a dog hanging, but associated it exclusively with the image of Mlle. Ti., one of the six percipients taking part in the experiment. For seven minutes I fixated the illuminated image, using the method of intermittent illumination in order to evoke "suppression" experi-

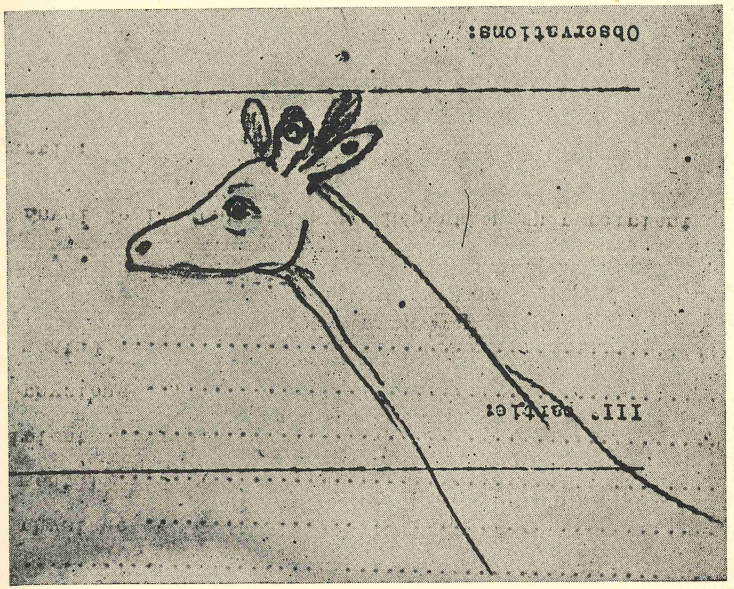


FIG. 11. 9 (a)

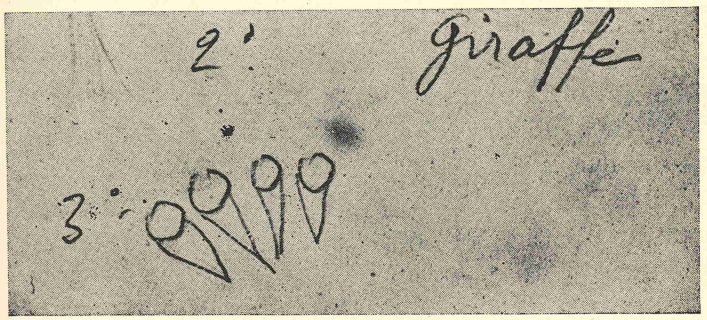


FIG. 11. 9 (b)

mentally. Mlle. Ti., and she alone, perceived the idea of a dog and its appropriate form. She wrote, "(1) A little dog passing through a hoop (the trade-mark of the jumping

dog); (2) a hyacinth bulb, a little ball at the top of the stem; and (3) a dog sitting up. I think of the Zoo."

Note that this message also passed through the unconscious, for the idea of dog hanging was not transmitted. It is still a question of elementary psychic charges. We are still far from the precision of the intellectualized psychic charges such as we had in the case of the die, only one face of which was seen.

4. This experiment was an absolute success. Nevertheless, one may still suspect the rôle of the unconscious, which seems to have been working at the same time as the conscious. B., the agent, had brought a giraffe balloon, which he blew up at the moment of the experiment. Bo., the percipient, in another room, wrote, "A giraffe," and then drew four forms which seem to be isolated drawings of the two ears and the two horns of the animal; see Figure 9. Let us recall that in the case of the donkey the ears were seen by themselves.

It is this fragmentation of drawings, in cases in which the subject of the message is perfectly understood by the percipient, which makes me believe in the transmission, from the agent, of isolated sensory impressions, broken up in his unconscious at the time of transmission. What one consciously thinks of may be perceived by some percipients, but this, I believe, depends upon the idiosyncrasies of the agent. Some are better agents than others. All may transmit through the unconscious, or, accidentally, through the subconscious; but few seem able to send a message consciously to ordinary percipients, as can my friend de Sainville. Extremely good percipients, in states which are almost mediumistic, may also benefit from their contact with the world of the superconscious so as to act very successfully as agents.

In all of us, attention to life is, as it were, turned back

upon itself, toward the plane of the superconscious, this world of the past from which, at times, the future may be seen. In order that a psychic charge may be transmitted telepathically, it is necessary — and, in fact, it is sufficient — that it should penetrate to this plane in which the superconsciousnesses of all living beings touch at one point. It is of small importance whether they arrive there fortuitously by way of the unconscious, or as a result of suppressions of the subconscious, or are led there voluntarily by means of appropriate guidance. They seem to obey definite laws. One of these laws appears to be that of psychical affinity, the great facility of association between the psychic charges of the agent and those of the percipient.

CHAPTER XII

The Nature of Telepathy

THE HYPOTHESIS of the reception of visual images, which has served us in the course of this study, has not yet been abandoned. We have now established the fact that it is the sensation which is transmitted, and that the message is objectified only by means of the percipient's own images, and is therefore greatly fragmented. We have rejected as absolutely unscientific the hypothesis of a veritable transmission of mental images, which would involve something like a moving picture projection from one brain to another. This hypothesis, however, is adopted by certain occultists, who even try to fix thought images on photographic plates.

On the other hand, the purely psychological theory does not seem to me comprehensible. Certainly there is a striking resemblance between the transmission of an idea from one individual to another, and that of a forgotten word from one level of our personality to another, whether by idea or by word; but this explanation bears on only one part of the phenomenon, reception. It clarifies brilliantly the rôle of the percipient, as I shall show in the next chapter; but the psychological hypothesis cannot clarify the entire mechanism of telepathy any more than does a simple, material, physical hypothesis. The philosophic conception of the transmission

of *pure idea* seems to me even more incomprehensible than the projection of a material image. Spiritualists, who believe that souls communicate with one another directly by the exchange of visual images, even after death, would be greatly handicapped in following a silent cinema story if the scenes were not explained to them by phrases and words gradually, as they appeared. But they would certainly be witnessing a succession of pure ideas.

Is this as much as to say that "man thinks because he speaks," as Coste postulates in his *Dieu et l'âme,* and that words are the probably indispensable auxiliaries of thought?

"When we think without words, it is in a vague manner, like the animals," says Michel Bréal. I doubt that, for ignorant deaf-mutes can think, but I do not know how animals think. Besides, the psychological study of the blind has shown that man can think without visual images, and he as evidently thinks without tactile or olfactory images.

But if I conceive of human thought without the support of the substratum of graphic signs, or of spoken language without visual, auditory, or tactile images, it is like thinking of certain combinations in organic chemistry as separate entities, although they are impossible to isolate, and exist only in combination. That does not prevent us from manipulating them, or just as philosophers do with abstract ideas, from juggling with the words that indicate them, combining the first radicals with an infinity of other radicals whose existence is purely hypothetical, and through this means obtaining perfectly definite and actual compounds. In this same way ideas can be expressed with different words in each language, and yet keep their own character in these many combinations.

Thought is not transmitted directly by telepathy any more than it is by images or words. Transmission of thought is a

process like the one that we ordinarily use in spoken language. We do not transmit *words* directly in speaking, but *sounds*. The agent's vocal organ emits some combinations of sound. Sound waves spread across the air to strike the percipient's ear. There is no carrying of words or images across space, only of sound waves. Between the agent and the percipient there is nothing psychological. The transportation is purely physical, so far as the space separating the two interlocutors is concerned.

An example will show, by analogy, how we can conceive the mechanism of telepathic transmission. A child sees a color, perhaps red, or a visual image of his mother. This color or this image will produce in him some emotional state, certain movements within the nerve cells. At the same time he hears the word "red" or "mother." And when he conceives these ideas himself, when his nerve cells receive these special vibrations, he will pronounce mentally, or murmur unconsciously, or, perhaps, even speak aloud, and emit the identical sound waves. These will be transmitted through the air and will strike the ears of other human beings, in whom they will awaken the same ideas because of the *known correspondence between these sounds and these ideas.*

But the vibratory movement of nerve cells associated with each image is stopped during a state of absolute unconsciousness. Why could not each of our thoughts be understood, aside from the association of sounds or of visual impressions, by other *unconscious associations, with other unknown waves?* I think of the word "red" or the word "mother." Why should not the vibratory movements with which each of these ideas is associated be capable of provoking, by resonance, similar vibratory movements associated with the same images in a brain constructed in the same way? When I cause a piano string to vibrate by striking a C, the

strings of neighboring pianos begin to vibrate and to send forth this same note.

In the insect world we find some facts quite as extraordinary. Piéron, in *Le sixième sens,* tells us that "among mosquitoes sexual influence makes itself felt at a distance in a surprising way by means of the sound emitted by the female. The 520 vibrations of C sharp cause the hairs of the male culex to vibrate in unison."

The unknown vibratory movement associated with the ideas of "red" and of "mother," having impinged upon a brain synchronously harmonized, will associate itself with the emotional vibration and will arouse in the percipient's brain the corresponding activity of the nerve cells; but the impression will remain subconscious.

To observe the conscious manifestation of the idea of "red" or of "mother," corresponding to the telepathic vibratory movement, it is necessary either to give it special attention by means of special preparation, or to be in an abnormal condition which would favor it. The intensity of the corresponding mental images — mingled with thousands of others in harmony with the vibrations of thousands of other thoughts coming at the same time to our brains, or spontaneously aroused by them — will be increased. When the agent's emotion is intense, the vibration will sometimes be potent enough to cleave a way across our associations of ideas. That is spontaneous telepathy.

"But," someone may say, "it is quite extraordinary that our nerve cells should emit waves in that way, without our being at all conscious of it." I shall comment on this by quoting a passage from one of my articles on "mistaken paranormal perception."

Let us suppose that, in several thousand years, man may have lost his olfactory sense, it seems to be decreasing in power. But

that would not prevent his having the necessary organ for that sense, although unused. However, some persons in a special psychological state will feel this ancestral faculty revive, under poorly defined conditions. Otherwise it would be regarded as nonexistent, people having no idea what an odor could be. But even so, one of these subjects with his eyes bandaged could designate a flower brought to him. As a matter of fact, the visual images of the flowers that he had seen in normal life would be unconsciously associated with these mysterious impressions of specific odors. These, in their turn, in the normal state, would be perceived and translated into corresponding visual images. For instance, a flower of a certain species would be taken from a bouquet of flowers of different kinds. A rose would be placed before the blindfolded subject. Immediately he would say he saw a rose.

I do not mean to say that the telepathic faculty is a vestigial residue of an obsolete sense, any more than that it is the embryo of a new sense, but only to imply that we can spend our lives beside a phenomenon so hidden that we cannot see it. In absolutely the same way, humanity, up to the last century, remained without a suspicion of the existence of electromagnetic waves, one of the greatest forces in the universe. I believe that this interpretation of the facts of telepathy by a transmission of vibratory states from the agent to the percipient is sufficient. It explains perfectly why sometimes the word is transmitted, sometimes the idea, or sometimes fragments of images or of drawings.

According to our hypothesis, the transmission of a scene or a picture is almost impossible if the percipient does not *know* it. Only elements familiar to both can be transmitted. That is what happened in the case of the room at the theater. The percipient saw images of scenery and workmen, and received the ideas of theater, make-believe, and artificiality, but not the actual scene witnessed by the agent.

The transmission of words (not the transmission of recently forgotten words, as in Abramowski's experiments, which are, in fact, only telepathy by increased intensity of mental images), considered as graphic or auditory images, is very significant, because words are in reality formed of elements in our minds. Numbers rarely transmit themselves as such, and often, when they do, it is by their elements. For instance, the number 14, transmitted unconsciously in one of our experiments, was received, not as a number, but as the figure 1, then the figure 4, written one after the other.

Analogy with Wireless

The simplest phenomenon of resonance, one to which I have already alluded, is that of the tuning fork, whose vibrations are transmitted to the surrounding air. When another fork, pitched in harmony with the first, is nearby, the second also vibrates. Hertz succeeded in getting similar "resonance" with electromagnetic waves. If we place two of Hertz's instruments at a distance from each other, they vibrate in unison. We call the instrument a resonator, by analogy with acoustic phenomena.

Branly and Lodge invented the "radioconductor," a sensitive detector which made possible the reception of Hertzian rays at a great distance. From this wireless telegraphy was born.

The Hertzian ray has the same velocity as light, and also many of its essential characteristics. It can be refracted, for instance, and it can be polarized. Electromagnetic waves can be absorbed by using a metal screen. Certain rays pass through walls of stone or brick, others go around obstacles. There is no *identity* between Hertzian rays and light waves, but there is a close *affinity*.

It may be that there is no relationship at all between telepathy and Hertzian waves, only an analogy similar to that between electric current and hydraulic current, having no real foundation, but useful for interpretation of the phenomena.

A. *Harmony Between Stations.*

As is well known, the phenomena of acoustical resonance are not possible unless two stations are tuned to each other. It is when the antenna is in resonance with the excitation circuit that transmission takes place. In telepathy, psychic syntonization, or harmony, seems to be just as indispensable. In spontaneous telepathy it has been observed between twins and between those in close relationships, as that of mother and son. I found that when the agent and the percipient read the same article, though of course on a subject different from that to be transmitted, a harmony was established between the two. By this procedure a psychological tuning is effected, which favors telepathic transmission.

In wireless, it is effective to direct the reception antenna toward the sending station and to put the isolated extremity opposite. This will yield the maximum intensity. This is the principle of the "radio beam."

There is a certain analogy between the radio beam and telepathy. If it is true that a general accord between the agent and the percipient is helpful, the particular activity of the percipient in focusing the agent in his thoughts seems more important to me than voluntary direction on the part of the agent. I mean by this only a purely psychological procedure. The orientation of the percipient's thought could be conditioned, perhaps, by a physical orientation. It might be profitable to combine some experiments in which the

physical orientation is known by the subjects, with others in which it is not known.

B. *Transmission in All Directions.*

If Hertzian waves are very similar to light waves, one should be able to transmit them in all directions. It has been discovered that, while the identity is not absolute, it is, at any rate, close enough to be used practically. Is the same true for the telepathic "waves" emitted by the agent?

We can, up to a certain point, direct Hertzian waves by absorbing them by metallic screens, except in the one direction in which we wish to transmit them. Will this find its analogy in telepathy? It seems so.

The case reported by Janet is classical. In the well-known experiments at Le Havre, Gilbert and Janet put their subject to sleep sixteen times, at distances varying from six yards to two miles.

It would seem that in the state of *rapport* between a hypnotist and his subject, there may at times be telepathy which is not a telepathy in all directions. But this state creates what may be a particularly complete syntonization, which does not exclude, however, the possibility that others might receive the order or the message. As we have seen, there are cases of telepathy between one agent and several percipients. We can consider it proved by the experience of Janet and others that a simple mental order, the mental suggestion of a hypnotist to his subject, can be transmitted at a distance to that subject. Can we state, as common sense indicates, that this phenomenon is limited to the subject? It is extremely probable, without being certain. We cannot say, for example, that if Janet's thought had been transmitted in all directions, everyone would have been put to sleep; this

is manifestly absurd. For it is the image of Janet that can be transmitted, and only his subject knew that he should go to sleep upon the appearance of Janet's image.

In wireless, the inconvenience of transmission in all directions has been overcome by perfection of tuning. It would be interesting to consider to what extent the agent's activity in telepathy is like wireless transmission.

In the experiments of *Cosmos* with one agent and several percipients, some results were obtained which would give grounds for thinking that telepathic waves are transmitted in several directions at once.

Is transmission facilitated when several agents send the same message? Perronet in *Forces psychiques et suggestion mentale* expresses this belief, and assigns great importance, for emission, to what he calls the "psychic chain."

C. *Transmission and Reception.*

Formerly, the apparatus for wireless transmission and reception differed considerably, especially the antennae. Those for transmission had to be as high as possible, and had a great length of cable. The apparatus for reception, on the contrary, could be reduced to the utmost simplicity. Today the receiving apparatus for wireless no longer has extensive antennae. A small frame with a few turns of wire is sufficient for the reception of transoceanic messages. Any wire attached to the receiving set and disconnected at the far end is adequate.

In telepathy, as in wireless, the sending station and the receiving station cannot be used interchangeably with the best results. Usher and Burt have shown that their successes were obtained only when one of the two acted as agent. In all my experiments, I have never succeeded in being a good

telepathic agent. In the first chapter of this volume we discussed the importance of sex and age, and their influence upon the power of transmitting.

D. *Transmission Difficulties.*

Wireless transmission still offers inherent obscurities to scientists, but it is far less surprising than telepathic transmission. Has anyone compared the expenditure of intelligence and money for the former with the indifference to the latter, which puts itself spontaneously at our service?

It has been noticed that while rain and snow do not impede wireless, and fog and mist favor it, the dryness of summer hinders it. Hertzian waves come through better over the sea than over land. Between day and night, there is a large difference in ease of transmission, in favor of darkness. After sunrise there is a minimum of transmission, and another after sunset. As Rothe says:

> It happens, without any apparent cause, that on some days certain distant stations are heard, which are usually not accessible. When photographs are taken after a rain, the plates are clearer, because there is less dust in the air. Wireless reception also becomes more powerful after a rain. It would seem that the electrified dust particles are an important factor in wave transmission.
>
> In Paris the telephone and telegraph lines form antennae already installed; some of them are naturally tuned in with the Eiffel Tower station and facilitate reception with small receiving sets. Sometimes observers in a warehouse who have at hand only a few wires hear radio messages very clearly because of some similar phenomenon.

And there is something for parapsychologists to ponder, for it seems that in a number of experiments the presence of certain persons, other than the agent and percipient, is helpful, while that of others is harmful. In any case, it is quite

probable that the proximity of too many strangers — for example, in large cities — may cause trouble in telepathic transmission. Thus far, we have not noticed any influence from physical or meteorological conditions, except perhaps the favorable effect of sea air and of darkness. The psychological conditions appear to me to be of predominant importance, at least with the percipient.

Differences Between Telepathy and Radio

A. *Absence of Code.*

When man wished to transmit messages to a distance farther than the sound of his voice carried, he had to imagine more and more complex systems of signaling. Fires lighted on hills, semaphores, and the like all necessitated that codes should be adopted by sender and receiver. Wireless did not at first escape this necessity. But in telepathy, there is no code. As we have seen, telepathic transmission has much more relation to talking than to writing, which calls for the placing of graphic signs in space.

B. *Time of Transmission.*

What is the speed of the telepathic wave? Usher and Burt state that the process of telepathic transmission does not take any measurable time. I have not been able to measure the duration of transmissions, even in my experiments at short distances; but if one goes by appearances, it has always seemed to me extremely long. Measuring the time of telepathic transmission is complicated by a purely psychological phenomenon, "latency," which has no equivalent in radio transmission. This "retarded percipience" has been explained in terms of subconscious recording. Usher and Burt

have observed that the transmitted image remained latent in certain cases.

For myself, the question is settled. My experience with the apparition of the corded package in the bedroom is easily explained as retarded percipience. Usher and Burt note a remarkable case of this sort which occurred because of a mistake in the time of the experiment. The agent sent one series of images, then another. The percipient began perceiving after the second series had been completed. The first series of images came through first; then the second; and then a return to the first.[1]

Latency is no argument against the analogy with radio; but we have no exact information about the speed of telepathic transmission, except that it is *sometimes* very rapid, probably instantaneous.

C. *Space and the Range of Telepathic Waves.*

Usher and Burt say that success in telepathy is not influenced by distance. I have had success in experiments done at a distance of from a few yards up to thousands of miles (transatlantic). It does not seem to me that distance impedes telepathy except in the detail of the subject's clear understanding of the hour of the experiments. And that is not serious, because of latency. On the other hand, distance in experiments has the positive advantage of eliminating such possible factors as unconscious whispering and "psychic parallelism." As these are always considered important, it is well to eliminate them.

If telepathic waves do not obey the law of decreasing as the square of the distance, they differ from most known natural forces. Hertzian waves, light waves, and sound waves

[1] *A.S.P.*, January, 1910.

all obey this law. How can we be assured that it does not apply also to telepathy? This difficulty does not appear insurmountable, for everything depends on the sensitivity of the receiver; and possibly the human brain is so sensitive that the intensity of telepathic waves cannot, in the available distance, decrease appreciably between two points.[2]

Usher and Burt have correctly remarked that the greatest difficulty is that we never know the power of the telepathic wave sent out. It may vary from one experiment to another, or even in the course of the same experiment. Nevertheless, if telepathy is, as I believe, transmitted in all directions, we could place several percipients at different distances during an experiment, and record whether the intensity of reception decreased with the distance.

Though it is true that perfect timing facilitates transmission in radio in spite of the distance, we must not forget that the receiving antennae have to be lengthened with the length of the wave used. In telepathy we do not know all the conditions that are favorable. Furthermore, an experiment like that suggested above would be complicated by the fact that the different percipients might act as telepathic relays, serving as amplifiers from place to place.

For the time being we can only observe what happens in spontaneous telepathy. I find in the literature of the subject several cases of distant transmission, between many countries, and even between Europe and Australia and Europe and the United States.

D. *The Power of Transmission Apparatus.*

In telepathy, there is certainly better syntonization than there is in modern wireless, so that a very little force is

[2] If conditions are psychologically favorable, all distances over the earth are practically equivalent.

enough for it. Since we do not wish to abandon the theory of psychophysical parallelism, according to which every state of consciousness corresponds to a cerebral condition, which accompanies it as faithfully as our shadows, we shall have to admit that the telepathic state corresponds to a special condition of the nerve cells. According to the hypothesis formulated at the beginning of this book, telepathic emission is only a *particular* case of *normal* transmission between our own neurones. Association of ideas in the brain is produced by electrical activity of one group of neurones setting up electrical activity in another group of neurones. The telepathic phenomenon – that is, the vibration of one of A's cerebral neurones producing, by resonance, the corresponding vibration in one of P's cerebral neurones – offers no difficulty here.

It seems to me that we can find in the disintegration of the atom the origin of radiations to account for distant and swift transmission. Psychic radioactivity, the breaking down of atoms of cerebral cells, is certainly pure hypothesis, but I feel it is necessary to explain the telepathic phenomenon.

Among reported psychic phenomena there are mediumistic "physical phenomena." Mediums supposedly produce electrical effects, lights, sounds, etc. It is pertinent to note that if these phenomena could produce themselves at a distance from the medium, that fact would be important; but the intensity of these phenomena, if we assume them to be genuine, certainly decreases with distance. They are said to occasion loss of weight of the medium. The telepathic phenomenon, perhaps of similar nature, being infinitely more frequent, may extend to immense distances in an attenuated state of the wave effect, but there is no reason why it should not obey the law of decreasing in strength with the square of the distance. It might be connected with a very limited state of disintegration of the atoms of the living cerebral cells. Among intelligent beings

the cerebral substance might be in a constant state of breakdown. Just as the disintegration of brute matter produces light, X-rays, and other forms of energy, so the dissociation of atoms of cerebral matter would produce perhaps, a sort of phosphorescence, which would be the substratum of thought. A more advanced or more rapid state of disintegration might produce telepathic phenomena.

Pierre Villard says, "The penetration of X-rays depends on the velocity of the cathode rays that produce them, and the velocity of the latter depends in turn upon the degree of rarefaction of gas in the tube." But the cathode rays of Crookes' tubes can be arrested by a sheet of aluminum 1/100 of a millimeter thick, whereas the beta rays of radium, counterparts of the cathode rays, penetrate two millimeters of the same. X-rays are stopped by a few tenths of a millimeter of lead; their counterparts in radium, the gamma rays, penetrate more than ten centimeters of lead, one of the most absorbent metals for this kind of radiation. And after they pass through lead of this thickness, enough energy remains to make phosphorescent a screen of platino-cyanide of barium.

Because of this penetrating power of the gamma rays, they are not adaptable to use in roentgenology, for, while the X-rays permit us to see the skeleton because of the different penetrability of the fleshy and bony tissues, the gamma rays penetrate all tissues and no image is produced. Besides, even if one places a human body between the X-ray apparatus and radium a yard away, no visible lessening of the screen's luminosity is manifest.

So, while our industrial apparatus cannot produce an emanation that can penetrate lead, such emanations are continually given off from a radioactive body. But these radioactive bodies consist simply of atoms of heightened atomic weight. In every series of Mendeléef's table of atomic weights

it is shown that, where the atomic weight surpasses 200, the atomic structure breaks down into atoms of a lower weight, at the same time emitting radiations. It is possible that the same thing may occur in organic chemistry. When the protein molecule reaches the degree of complication that exists in our brain, the electrons are released, and very rapid, very penetrating vibrations are produced.

While this "degradation" of radium or polonium is reckoned in tens of thousands of years, that of a living molecule might be instantaneous; that is, it might in one instant give off energy equivalent to several horsepower, because life renews itself, as brute matter does not.

When we speak of the direct transmission of a word unknown to the percipient, we must admit that there seems to be no physical analogy for this class of phenomena. Nevertheless, we know that, in addition to gamma rays and X-rays, transmitted in all directions, radium also emits beta rays, counterparts of cathode rays, and, above all, alpha rays which carry positive electric charges in straight lines, like veritable projectiles.

We can conceive how such projectiles might be sent in a straight line by using screens analogous to those mentioned above. It might be the same with thought, which might transmit its affective state generally by an activity in all directions. But in those particular cases in which the will would play an important part, the transmission would be by psychic projectiles having direction. This method of transmission would resemble that of the postal service, in which the actual writing is sent, more than it would resemble transmission of a telegram. The corpuscular projectiles which have gone astray make us think of bottles with messages thrown into the sea by shipwrecked sailors. The touchstone of corpuscular transmission would be the sending of something unfamiliar to the

percipient — for instance, a foreign language. But the cases which could be given this interpretation are most often limited to simple orders (such as to sleep, or to come to a specified place), in which a sustained determination appears necessary. The cases which deal with a message whose terms are unfamiliar to the percipient are so rare that we shall have to wait for new data. However, this direct transmission already so far transcends positive expectation that one can approach it only with difficulty, for hypotheses of this class are no more comprehensible than ordinary spiritualistic theories.

What is the psychic approach to a being whose position in space is not known? Let us wait until experiments show us. That should be relatively easy, though, if thought always transmits itself in all directions. Therefore let us try to influence one single percipient when several are available for experimentation. Let us use agents and percipients on a moving train, or at sea. Possibly certain "insoluble problems" of "materialism" and "idealism" will find a solution here.

We must always keep these new concepts of modern physics in mind, in order to understand psychological phenomena. While in the seventeenth century Fénélon could write that the greatest miracle of Divinity was to have been able to mingle in man the coarseness of matter and the spirituality of the soul, we know at the present time that matter is not as crude as it appears. Modern physics has demonstrated that our organs, like other material bodies, are made up of whirlwinds of forces, reacting on one another. The spirit is more at ease with the conception of these minute solar systems of ions and electrons than with the blood-filled particles that constitute the brain, as seen by our eyes. When we face the question from this angle, which we know is the true one, we can conceive perfectly how the vibrations of the nervous system can be produced, how they can lead the vibrations of external

bodies, through the nerve centers, to the center of consciousness. We can conceive how motor nerves can transmit orders to muscles, how ideas can be associated with or without fibers of association, can pass beyond the cranium and influence, by induction, other nerve centers in other brains.

CHAPTER XIII

The Difficulties of Telepathic Transmission

THOSE scholars who have not studied the subject of telepathy, and who have never had the opportunity of observing a single case, reproach us for not being able to repeat our experiments at will. Does the complexity of a phenomenon in chemistry always permit us to reproduce a reaction without difficulty? Certainly we can always, in the end, repeat an experiment whose conditions are well known to us; but was that possible for the chemists of antiquity who did not know all the laws that we now know? Evidently not. And does the physician cure without fail? Does the psychiatrist never meet with any surprises in mental disturbance, or in hypnotism?

The scholarly Dr. Bérillon demands that we should "transmit" a thought to him at will, before he can believe in telepathy. "When I strike a match, it lights. I know that it will light, if not the first time, the second or third. There is nothing like that in your cases of telepathy." Often, in fact, the match does not light. It may just throw off a few sparks. Besides, if we should give the learned doctor two sticks of wood and ask him to light his cigarette by rubbing them together, he would doubtless be much embarrassed. However, that is how our distant ancestors obtained fire. They did not have the combustible chemical compounds that we have for our

matches. In parapsychology we are still in that position, and we shall stay there a long time if no one interests himself in the subject.

To induce a dream of a given object has been found to be extremely difficult, although this implies only a simple transmission from the conscious to the subconscious. Have not even great psychologists been unable to think of a proper name or a telephone number or a word that they had "on the tip of their tongue," although this would only be a simple transmission from the subconscious to the conscious? At the moment when we least think of it, the word comes. To our great surprise the transmission from one level of our consciousness to another is accomplished. Our thoughts do not always flash at our will, and we are far from understanding how they do flash; but that is not the principal difficulty. Frequently, when the messages do come through, they come through wrong. I have made some search to see whether there are not as many mistakes in our normal life as we have observed in our modest attempts at telepathic transmission.

A. *Errors in Perception.*

Do we not continually meet, in the psychic phenomena of everyday life, extraordinary cases of erroneous normal perception? But happily they receive their explanation. I wish to speak particularly of the perception of young children, whose intelligence with regard to normal sensation, is in the same position as is our intelligence when confronted with the paranormal. Children are in a period of trial and error, still unaccustomed to use the sensations. Moreover, we know how close to dream life is the life of the young child, beginning as it does in sleep.

Dr. Philippe, head of the Sorbonne laboratory of physi-

ological psychology, gives, in *L'Image mentale,* a very interesting study of children's normal perception. J. Clavière, experimenting with a little girl, showed her a picture of the Roman Forum, asking her each time, "What is that?" At the age of twenty-nine months she replied that it was a railroad; at thirty months, a toy. At thirty-eight months, the child, who had just returned from a railroad journey, said, "That's where the railroad goes by." She pointed to the parallel lines showing the ground between the ruins of the Temple of Vespasian and the Arch of Septimius Severus. Her replies to the question, up to the age of four years and seven months, showed the influence of more or less recent impressions. Thus, at four years and two and a half months: "That is a buffet like the one in the dining room. There, you know, the part where there were wooden horses that went 'tic-tac.' " And at four years and seven months: "The little children pass by there to go to Père Fouettard's house. He puts them in the earth. They put a box in the ground, and there it is."

Clavière showed the same picture and put the same question to his little son, two years and seven days old, who, to the question, replied, "Water." He made gestures with his hands to indicate waterfalls that he had just seen in Switzerland. He pointed to the dome in the left background and said, "It is half-past eleven." He doubtless had the idea of a church with a tower clock. Finally he said, "Railroad," for the columns of the Temple of Saturn, or probably for the rows of houses that one sees behind the Temple. At three years and one month he replied (October 22, 1914): "Down there are Germans, at the right, coming down the steps into the water. We can't see them. At the left are the French. There are towers (columns) in the background; at the right the railway station, and at the left, the church they can't take."

Dr. Philippe's conclusion is that our perception images are

only the outcome and product of all our previous similar mental images.

What is going to become of the memory of the Roman Forum in the minds of these children? Will it be fixed or be lost? Let us grant that it will be preserved in the subconscious. The image of the railroad will continue to be interpreted in their minds with increasing facility as it becomes more modifiable. The error of memory will be added to the inexactitude of perception. Foucant has undertaken to show in his work on dreams that the memory of a dream, which we ordinarily call the dream itself, is very different from the dream as it is presented to the mind during sleep. Even our memories of the day are themselves often much mistaken.

In the same book Dr. Philippe says that while visiting a town he noticed in the church an altar of carved and gilded wood, whose unusual work had attracted his attention. During the following months, this image came back to him with such clarity that he would have been able to draw it. He even described it to several persons. Finally, when he visited that town again, he saw that the altar had only a remote connection, either in style or in detail, with the image that he had so clearly seen.

I have often observed transformations of this sort. For example, I pictured to myself a country house in which I had lived twenty years past. At first I saw indistinctly the house, and the iron fence around the grounds. Then I saw clearly a detail that I thought I had forgotten, some pots of geraniums on the kitchen window sill, then a loose flagstone on the terrace, and an old walnut tree. Under this tree I clearly saw a seesaw. On due reflection I corrected my memory picture. There had never been a seesaw there — only a horizontal bar.[1]

[1] Maxwell has indicated this cause of error in telepathic transmission. "The activity of the conscious mind elaborates vague, imperfect images, which it completes to render them intelligible to itself, at the same time altering them."

Such images are not the true stereotypes of the subconscious memory, but are more or less clear productions. When they are clear, the picture is quite exact, more precise than one would expect; but when they are not clear, the imagination completes them more or less incorrectly.

The psychological phenomenon at the bottom of all the errors of perception is association of ideas, the study of which will clear up some obscure points.

B. *Association of Ideas.*

1. *Rôle of the Agent.* Let us imagine the simplest sort of case. The agent fixates an object, or the image of the object — a horse, for example. His gaze may unconsciously fall on its saddle or its shoes. What is produced when the subject is asked to say immediately the word that is called for by the word saddle? He might say *horseman*. So it is not strange if the word *horse* is said automatically by the percipient in a telepathic experiment in which the agent is attempting to transmit the idea of a *saddle*. In the work of Usher and Burt there was a failure due to partial transmission of a drawing, in which only the trunk of an elephant (the selected image for transmission) was reproduced by the percipient. Hence nothing proves, to begin with, that the word *horse* or the idea of a saddle or of a shoe has been transmitted. For we know nothing about transmission except that it most often occurs unconsciously, and that it starts from the region of subconscious memory in which associations are formed.

Claparède [1] says, "The evocation of an idea depends on its contiguous relations, not only with the idea immediately preceding, but with all the ideas that at the time are subconscious. The nerve plexus of imagery, whose excitation con-

[1] *Association des idées.*

stitutes an important factor of evocation, is called by Ziehen the 'constellation of ideas.' "

A subject is shown a bird. He associates with it the word *tree*. But a mechanic, who naturally associates the idea of "trees" (of iron) with wheels, may respond to the word *bird* with the word *wheels*.

Oliver Lodge, in *The Survival of Man,* cites an instance of telepathy that can be explained in the same manner. The object whose image was to be transmitted was a teapot cut out of silver paper. The percipient said, "Something light. . . . No colour. Looks like a duck. . . . Like a silver duck. . . . Something oval. . . . Head at one end and tail at the other." Dr. Herdman explained that during the experiment he had been thinking how much that teapot resembled a duck.

2. *Rôle of the Percipient.* All the causes of error which can occur in the agent's mind are also present in the percipient's, to distort the already unrecognizable image. The percipient's associations of ideas are frequently easy to reveal. In the experiments of Usher and Burt, I find nine such associations for the percipient as compared with one for the agent.

In psychology we also encounter association by *concurrence*. Wahle has observed that an image which cannot come out when solicited by only one image, may be able to achieve emergence on receiving an additional force from another group of images. For a long while he had not thought of Venice. Although he passed the Gothic architecture of the Hôtel de Ville every day, he had never associated it with the Doge's Palace. No image of the latter had been awakened. But one evening this association did emerge. Why? Wahle recalled that two hours previous he had met a lady who wore a brooch shaped like a Venetian gondola.

I believe that association by concurrence favors parapsy-

chological phenomena, but that the association of ideas is probably harmful, in general. It sometimes completely distorts the inductor. Münsterberg showed that the meaning of one word influences the perception of another word. We show a subject, for a very short time, a word written on a card, and at the same instant we pronounce another word. The subject erroneously reads, for example, *vernier* (to varnish) instead of *venir* (to come), if we have whispered the word *color*. Thus for good transmission it is indispensable that the subject be in an environment of absolute silence.

Often the word induced is influenced by a sentiment or emotion. For example, *a gray paper* may induce the word *cold*. As for the influence of underlying feelings, sadness or joy may color images and dramatize them. It is necessary for the percipient to be in good spirits, free of cares and even of conscious thoughts. Any peculiarity of interest has its influence. The inductor *king* results in the induction of *subject* or *monarch,* according to the frame of mind at the moment.

It is necessary also to follow the associative pattern of thoughts. And, since telepathic messages differ according to the intellectual types of agent and percipient, it may be important to know, in so far as possible, where the distortion of the message arises. For example, I asked two persons of different intellectual types to give me a spontaneous association with a word which had just been transmitted telepathically to me. The first person was of the inductive type, reasoning from the particular to the general, and the second was deductive, reasoning from the general to the particular. The results follow:

Word	*Inductive, Abstract Type*	*Deductive, Concrete Type*
prayer	contemplation	knees
theater	distraction	monument
sword	struggle	hilt
harp	melody	string
parrot	naughtiness	red
revolver	drawn	fire
book	poetry	page
drowned	macabre	tongue

Next to associations by contrast, most dangerous to the success of telepathic reception are associations of words by assonance. Here it is the sound and not the sense that determines the association, and as such associations completely mask the message it is important to try to avoid them. We know that they are caused chiefly by hunger and fatigue, and that alcohol affects them favorably. We have tried the effects of alcohol with Archat, and found that it diminishes the rapidity of association, but seems to augment the number of messages and increase their vivacity. It does not harm telepathic reception, and may possibly help it. After five meals with alcohol, we obtained three and one-half successes, one failure. After a meal with coffee, one half-success. After a meal with antipyrine, a sedative, one half-success. After a meal of vegetables and water, we obtained one success. Of course, from such a small number of experiments one cannot draw any conclusions on the subject of the elimination of purely mechanical associations.

Besides, while the association of ideas is the most important cause of error in telepathic experiments, it is evidently not the only cause. We must take account of what Claparède calls the *spontaneous evocation of images*. Although the obscure cause may be association, Claparède attributes false responses to change in cerebral circulation, basing his opinion

on experiments with dreams. Herbart attributes them to the tendency of each association to emerge as soon as it is no longer inhibited by another stronger association. I believe also that the tendency of images to objectify themselves is the chief reason for their spontaneous appearance. They all try to appear at the same time, and it is our attention which holds them back. However that may be, it is in the realm of association that telepathy appears, and attention may intervene to reinforce one of the associations. But entirely different images may be reinforced at the same time by other telepathic waves. Then we get confused messages, as happens in radio under similar circumstances.

Summing up, the causes of error in telepathic transmission are numerous, including poor perception and associations on the agent's part, errors in perception and complexity of associations on the percipient's part, spontaneous evocation of images, and confused messages. The small number of successes is no cause for astonishment. Environment is an important factor in telepathic experimentation. Flournoy[1] says, in relation to the influence of environment on ideation, "A person is asked to do ten drawings of any kind on one sheet of paper, then to write ten unconnected words, and finally to indicate five actions that could be performed in the room where he is. It is a question of making some distinction, often very delicate, between ideas which have been suggested by the environment and those provided by other means. This experiment was tried with forty-three subjects. The influence of the environment was clearly revealed in 20 per cent of the acts, in 16 per cent of the drawings, and in 31 per cent of the words."

In reality, we must record as extremely important the fact

[1] *Année psychologique,* 1895, I, 180-190.

that, even in the best experiments, success comes only approximately, and at first by means of association of ideas. These associations of ideas disturb the telepathic phenomenon, often to the point of concealing it entirely. Some are so complex — coming, as they do, partly from the agent, partly from the percipient — that it is utterly impossible to analyze them. Is it not possible that, just as pathology has rendered great service to physiology, these errors in paranormal perception, so similar to those of our normal perception, and these failures may contribute greatly to the explanation of telepathy? The failures may be more valuable than the successes. It is by their light, vacillating like a will-o'-the-wisp, that we must find the key to telepathy.

CHAPTER XIV

Development of the Telepathic Faculty

WE HAVE seen that telepathic reception is naturally influenced by the imagination. But if the imagination is one road that the telepathic phenomenon follows easily, would it not be possible, on the other hand, to use the imagination as a taking-off point in development for the emission of a message as well as for its reception?

Imagination, that "fool of logic," has a conscious aspect, accessible to the will, and an inaccessible, subconscious side. It is this last that has the power to put us in contact with the paranormal world.

Van Helmont probably had this subconscious imagination in mind when he wrote: "Every man is capable of influencing his kind at a distance, but generally this force is sleeping in us, suffocated by the body. A certain harmony between the operator and the patient is necessary to the exercise of this faculty. The latter must have his sensitivity aroused; under the influence of his internal imagination his sensitivity becomes responsive to the activity of the operator."

We are going to try to determine how we may achieve this accord of which Helmont speaks, that is, in modern phraseology, what methods may be used to harmonize the agent and

the percipient by means of the imagination. Empirics have successfully employed the imagination to open the door to the paranormal.

In 1841 Léon de Laborde declared, in his *Researches into What Has Been Saved in Modern Egypt of the Science of the Ancient Magicians,* that he had obtained good results by reproducing some things which he had seen done. "The sorcerer made a thick spot of ink in the middle of a square, inscribed with certain letters, on the palm of his left hand. With a twelve-year-old boy as his subject, he performed some conjuration, burnt some perfumes, and told the boy to see in the blot of ink first his own face, then the Emir and his bodyguard. The boy (under suggestion) saw the Emir, his retinue, and his tent, with a man standing before the entrance. The sorcerer then told the boy to ask this man to go and find the person of whom the consultant was thinking. The child obeyed, and soon described that person."

In his *Method of Developing Supernormal Faculties* Caslant uses the play of association of ideas to develop the imagination of his subjects. He pronounces a list of words to serve as inductors; this has the effect of putting the agent and percipient in unison. For instance, the word *statue* pronounced by the agent may evoke in the percipient's mind, not only a number of statues that he has seen, but also a specific statue, the one thought of by the agent.

The trouble with this method, from our point of view, is that the agent and percipient must be in the same room. This leads to errors and excites the conscious imagination too greatly at the expense of the subconscious. Nevertheless, it might be a good way in which to begin with subjects who lack imagination. We may outline four methods of training used by different experimenters to obtain directed telepathy.

1. The agent attempts to represent to himself the percipient as objectively as possible. He uses photographs, letters, and objects belonging to the percipient, the purpose being to create a telepathic atmosphere. The agent imagines himself to be where the percipient usually is, if he possesses this information, and in his imagination he goes toward the percipient.

2. The agent imagines himself to be the percipient by identifying himself with the percipient and dramatizing him as an actor would. This is done only on the plane of the imagination. The agent draws the percipient toward himself in imagination.

3. The percipient represents the agent to himself, using photographs, letters, and objects as the agent did in the first method mentioned. He imagines himself to be going toward the agent.

4. The percipient imagines himself to be the agent, as did the agent with regard to him in the second method mentioned. The percipient imagines himself to be drawing the agent toward him. Let us now consider the methods in detail.

1. *In imagination the agent goes toward the percipient.* This is the method employed with great success by our friend de Sainville, particularly in a long series with me. I shall give an extract from our experiment of July 20, 1927, as an example. This work was previously reported in *Revue Métapsychique.*[1]

De Sainville envisaged "a glass globe filled with birds." He thought, "The birds fly and whirl around your head." I

[1] 1928, cf. p. 299.

received the impression of "a white bird, like a seagull, and with a head like de Sainville, banking on the right wing while alighting near me."

Képhren says, in his *La Transmission de pensée:*

I think that I have gone to the place where the subject is, and that I seat myself on one of his chairs. . . . The agent has the sensation that an imponderable part of him has gone, penetrating the subject. . . . If the agent thinks of an animal, he modifies his nervous constitution and makes the percipient take the form, the size, and the attitude of the animal. If he does not obtain from the subject what he wishes, he experiences a discomfort, otherwise an impression of comfort. The subject should be merely passive. He feels a hot or a cold breath in the epigastric region, then an impression that induces him to breathe more heavily. His nervous constitution takes the form desired by the agent and his physical body adapts itself, feeling the need of walking on all fours. . . . In my first experiments I imagined myself to be beside the subject, but the most perfect method is that in which the agent sees the subject as living, as tangible, and as real as possible, in the very attitude of carrying out the proposed action.

2. *In imagination the agent draws the percipient toward him.* In *La Suggestion mentale,* Ochorowicz says that "to establish *rapport* the agent calls the percipient mentally and draws his attention by an effort. To make the subject execute an order, the agent represents it to himself inwardly, and mentally urges the subject in the desired direction by thinking clearly of what he wishes to obtain."

Gibotteau[2] obtained some absolutely remarkable results with this method. By concentrating upon his own larynx and imagining himself to be the subject, he caused the subject to cough. By sleeping a little himself, he could put the subject to sleep. According to him, it is helpful to be familiar with the room where the percipient is.

[2] *A.S.P.,* 1892, p. 254.

Mme. David-Neel writes in *Les Phénomènes psychiques au Tibet:*[3]

When the novice has become capable of profound concentration of thought, he retires with his fellow student into a dark room in a very quiet location. There he concentrates his thoughts on his companion until he succeeds in forgetting his own personality, and mentally assumes that of the other.

To clarify this, let us suppose that the first one is called Souam and the other Tsoudu. When Souam has rejected as completely as possible the consciousness of being Souam, when he feels himself to be Tsoudu, he imagines the thought or action that he had previously decided to suggest to Tsoudu. He concentrates his mind upon this thought, always imagining that it is Tsoudu who thinks; or, rather, he accomplishes mentally, in all its details, the act that he wished to have accomplished by Tsoudu. And likewise, while he effects it in the mind, he imagines that it is Tsoudu acting.

The system of spiritual training includes meditation on the equivalence and identity of all things. . . . it is said that when, by the enlightenment resulting from these mental exercises, one has ceased to consider himself and others as absolutely distinct entities devoid of points of contact, the art of telepathy becomes facile.

3. *In imagination the percipient goes toward the agent.* In our opinion the percipient should be reduced by the agent to mono-ideism, so that the percipient can imagine himself, at the beginning of his passivity, as going toward the agent, but, by stopping his imagination at that point, may allow himself to become purely passive. One of our best percipients, Mme. Fernandez, imagines that she is following the agent in thought and looking over his shoulder at what he is drawing. I have often observed that, if the percipient is content to be passive, the images received are false. If, however, he makes an effort to focus attention upon the agent, and then achieves

[3] Published in the *Revue de Paris,* 23, 1929.

a second moment of passivity, the images received are true.

All our experience shows us that a certain activity of the percipient upon the agent is useful, although we have not succeeded in establishing as clearly the usefulness of the activity of the agent. Let us recall that this method is employed by the great clairvoyant Ossowiecki.[4]

4. *In imagination the percipient draws the agent toward himself.* We find in this method the system of spiritual development used by Mme. David-Neel, but in this case it is the percipient and not the agent who exerts the attraction. It is quite evident that if the agent identifies himself with the percipient the same result is obtained as if the percipient had identified himself with the agent. I shall quote Abbé Rouguette of the Society of African Missions, at Lyons. In his curious book, *Les Sociétés secrètes chez les Mussulmans,*[5] he describes the different methods used by the Moslem mystics to put themselves "in *rapport* with the demon." First of all, let us notice how singularly the state of passivity of these mystics resembles that of our telepathic percipients: "Visions can come to the individual only in meditation and seclusion." In describing hypnagogic illusions he says:

The truth then shows itself in all its glory, sometimes in the form of such inanimate things as coral, sometimes in the forms of plants and trees. Or these hypnagogic visions may be of animal forms, or "autoscopic" visions, in the form of the dreamer himself, or even in the form of his "sheikh".

The Moslem mystic has that something in his soul that not only permits, but compels him to fall into an ecstasy. . . . Is it astonishing that in their waking hours, their insomnia, or their sleep, the imagination retraces the image for them in whatever form they have been pleased to represent it to themselves? The mystic Moslem believes that he is united with God; literally,

[4] See *Revue Métapsychique,* 1930, Footnote, p. 131.

[5] Paris, 1899.

"falls into God". It is necessary for him to achieve annihilation of his individuality and to become absorbed in the divine essence. . . .

Where shall we find the frightful doctrine of pantheism expressed in a more categorical manner?

Now, let us see how this Mohammedan mystic, in deep passivity, places himself in communication with his religious leader, his *sheikh*.

One method, the third, consists in absorbing himself in the spirit of his sheikh. To attain this end it is necessary to engrave the sheikh's image in his mind, and to think of it at his right shoulder. Afterwards, he will trace from his shoulder to his heart a line intended to afford passage to the sheikh's spirit, so that he will come and take possession of that organ. This ritual is to be repeated until the sheikh invoked comes to take possession of the suppliant's heart, and to absorb him into the fullness of his being.

It was in this same way that Galatea incarnated herself in the statue when Pygmalion had finished it. This occurs as if the complex psychic representations that we have of a person create a kind of second personality within ourselves. By objectifying the type, there is created a psychic twin brother of the first person, who finds himself naturally in accord, permitting telepathic transmission.

That is the theory. What is the reply of facts, and what are our own conclusions after thirty years of experimentation? First we must go back to the four methods of development, grouped in two main classes.

1. The agent goes toward the percipient in his imagination, and the agent attracts the percipient by his imagination. This amounts to saying that the agent has the mono-ideism of the percipient.

2. The percipient goes toward the agent in his imagination, and the percipient attracts the agent by his imagination. This

amounts to saying that the percipient has the mono-ideism of the agent.

1. *The Agent Has the Mono-ideism of the Percipient.*

The fact that an emotional image or a vivid sensation in the agent's mind is spontaneously aroused at the same time as is the memory-image of the percipient, suffices to produce, as we know, a case of spontaneous telepathy, even when the percipient is not paying attention in any way and therefore does not have the mono-ideism of the agent.

Nevertheless, we have never succeeded in producing this phenomenon experimentally. In all our cases it was necessary for the percipient to be forewarned, and under these conditions the fact that the agent may concentrate upon one selected percipient did not appear to influence the results. We must note in the majority of the experiments of the writers quoted that the agent acted upon a single percipient. Consequently it is difficult to know in what direction the communication was sent. Everything occurred as if the agent acted upon the percipient, but there is nothing to demonstrate this absolutely. Does the transmission go from the agent to the percipient, or from the percipient to the agent?

The advantage of our group experiments is that they permit us to approach a solution to this problem. There may be one agent for ten percipients. The agent sends a message intended exclusively for one of the ten percipients. For example, he thinks of that one only, and imagines himself to be identified with that one percipient, meanwhile looking at a drawing. These experiments have been repeated a considerable number of times. The result is that when the message has been received it has been received sometimes by one, sometimes by several of the percipients, but not particularly by the percipient selected by the agent.

2. *The Percipient Has the Mono-ideism of the Agent.*

This, as we have already said, appears indispensable to us. The rôle of the percipient's imagination appears primordial. It should manifest itself in his faith in the existence of telepathy, a faith which is not necessary in the person with whom he tries to get in contact. Everything that increases the belief of the percipient in telepathy tends to favor it. Then comes the belief that, in thinking intensely of the agent, he will release the telepathic message. This has the effect of exciting the subconscious imagination to present to the normal consciousness images which, by their novelty and apparent independence, excite curiosity and attention. When this play of imagery has begun, it is not rare that a telepathic phenomenon occurs. This was the procedure used by Mrs. Upton Sinclair.[6] In her work, although any object might have served to release subconscious images, she most frequently chose to use the impression of a flower.

Mrs. Sinclair recommends the visualization of a familiar object, such as a violet or a rose, to the exclusion of any other memory-image, an object not likely to arouse a train of emotional memories. Concentration should be upon the form or color or both, until the object appears in a visual image, with color and form. If this leads to associated images, it is advisable to select another flower or some other object.

This concentration brings a tendency to fall asleep; however, the subject must stop before reaching that point. When the image has appeared, the mind should be made blank, and one should wait until an absolutely novel image shows itself. The image is generally in fragments. Then the subject should note the image and observe it, for it is the telepathic image.

The procedure consists in sending a message to oneself. When the message arrives it may be foreign to the original.

[6] Sinclair, Upton, *Mental Radio.*

It is not a question of merely thinking of a certain flower, but of seeing it appear inwardly as a hypnagogic image.[7] A certain amount of time is necessary to bring about this experience. The flower chosen as the object of a telepathic message appears to the inner vision in fragments. It has a certain objectivity and an apparent localization in the visual field. If, at this moment, the percipient again makes his mind blank and returns his attention to the point at which the image of the flower may appear, the telepathic image will arrive under the same conditions.

The process of representing an object to oneself certainly produces a very small degree of dissociation of the personality. While in the ordinary waking state we are all actors, here one part of the ego is an actor, the other a spectator. An excellent condition for the appearance of paranormal phenomena exists when the state of dissociation is almost imperceptible, like that of the dowser with his divining wand. In a word, one arouses his subconscious, and must wait for a response from that source as to what other paranormal information will be forthcoming. It is a process of psychic siphoning. When a beginning is made consciously, the process continues unconsciously. The ascending current, having found the required elements in the subconscious, sets in motion a descending current, and brings along in its wake other elements from the paranormal depths.

[7] From the psychological point of view, the appearance of an image produced by autosuggestion, having the same objectivity and characteristics as hypnagogic illusions arising from retinal phosphenes, would demonstrate a repercussion of the mental on the *physiological,* of the imagination on the retina or, more probably, on the nerve centers of vision. Hence a distinction would have to be made between phosphenes of physiological origin and those of psychic origin. The former, according to the theories of Bergson and Delage, give rise to hypnagogic illusions, to visual illusion and to memory-images in dreams. The latter would attract images arising from a paranormal zone of consciousness.

We note here that it was not necessary for Mrs. Sinclair, a particularly gifted subject, to imagine herself in accord with a particular agent in a group, for her experiments were done with only one person at a time, usually her husband.

In our group at the *Institut* we have been able to make group experiments to ascertain what happens, not only when one agent wishes to influence one particular percipient out of many, but also when a percipient wishes to enter into accord with a specified agent. In two further series of trials we shall now see how far it is necessary to take account of mystical or sentimental theories.

A. *The Agent's imagination Is Oriented Toward a Selected Percipient.*

1. Bonnet, the agent, thought exclusively of sending a message to Mlle. T. Canel. This experiment was made without a drawing, purely mentally. The message: a cat with its tail curled up. Mlle. T. Canel wrote on a slip of paper, "The head of a cat."

2. Same experimenters, same conditions. The agent thought of a pitcher transforming itself into a vase. Mlle. T. Canel made a drawing of a vase *and* a jug.

3. The agent, R. W., thought exclusively of Mlle. T. Canel, one of a number of percipients. He poured powdered acetate of uranium, contained in a flask, on to a paper in little heaps, tracing the monogram of TC, as in Figure 1 (a). R. W. wished to determine whether the radioactivity of the compound would be received.

Mlle. T. Canel first drew a cross, whose center emitted rays of light, then the pistil and stamens of a flower, and finally two bottles whose necks emitted rays of light. See Figure 1 (b).

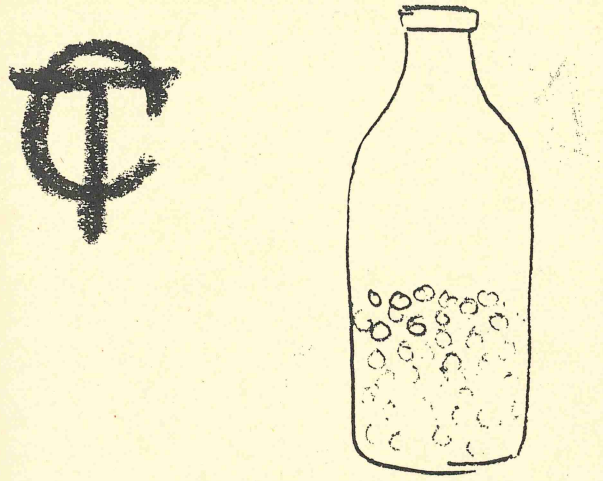


FIG. 14. 1 (a)

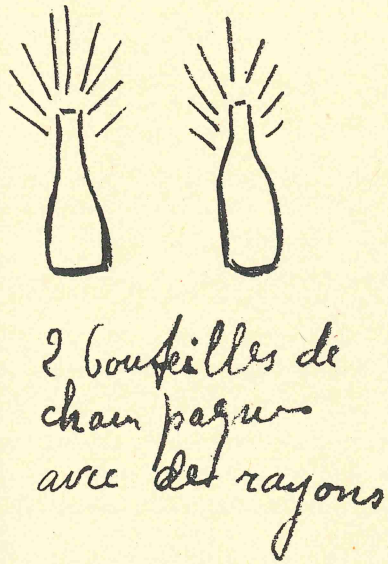


FIG. 14. 1 (b)

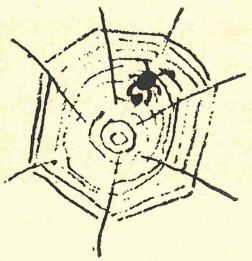


FIG. 14. 2 (a)

FIG. 14. 2 (b)

4. Salomon, the agent, thought only of Mme. Fernandez. He drew a spider's web and a spider pouncing upon a fly, as shown in Figure 2 (a). Mme. Fernandez wrote, "Feet descending a spiral staircase, trigonometry." She drew an insect resembling a spider; see Figure 2 (b).

5. One agent, R. W., and several percipients. The agent pasted a prepared cut-out design made with a stylus, upon a letter from Mme. Fernandez. The figure was a belfry. He looked at the design while reading and rereading the letter from Mme. Fernandez.

Mme. Fernandez received nothing definite; but Mme. Darvers, another percipient, had the idea of perforation with a pointed instrument, of a tic-tac, of a rhythmical mechanical beating. She sketched a horn, then a funnel.

6. R. W., the agent, read several exciting pages from a book written by one of the percipients, Bonnet's *Jacques et Jacqueline*. The agent cut the pages of the book with a cardboard bookmark decorated with scenes of cockfights and flowers, as in Figure 3 (a). He wished to transmit the disagreeable impression of running blood.

Bonnet received a whip, a parrot with its feeding dish, flowers, and a glass of wine. Devresse, another percipient, whom

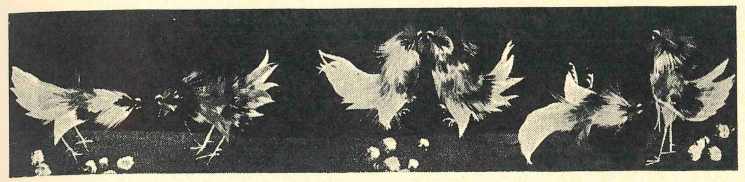


FIG. 14. 3 (a)

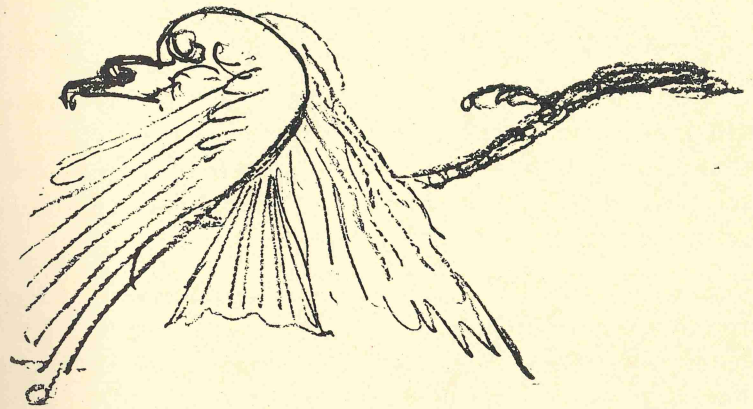


FIG. 14. 3 (b)

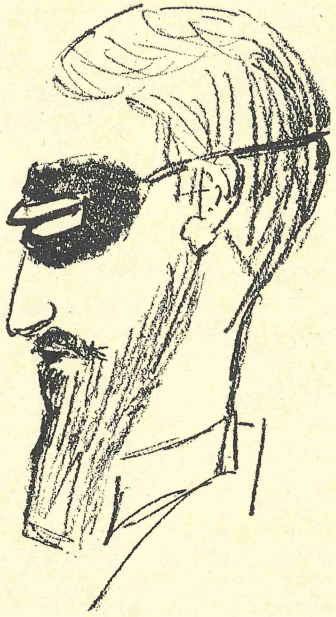


FIG. 14. 4 (a)

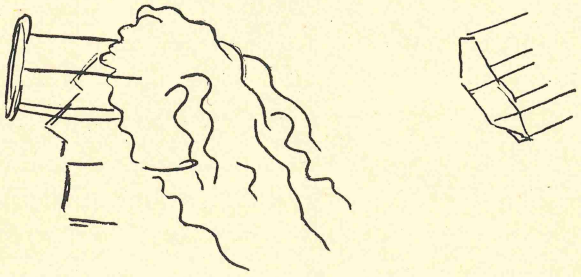


FIG. 14. 4 (b)

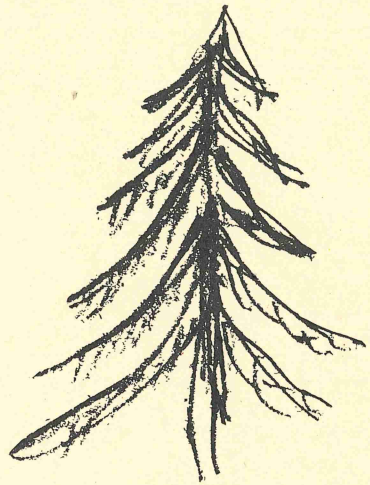


FIG. 14. 5 (a)

the agent did not think of especially, received the impression of repulsion for an object, perhaps an animal, and then drew the bird of prey and rose bush shown in Figure 3 (b).

7. R. W., the agent, looked at a colored drawing of some red factory buildings under a blue sky. He imagined himself to be walking around with Mlle. Tirebaud, one of the percipients. By a bizarre coincidence, the building was associated mentally with the plaza of St. Mark in Venice.

Mlle. Tirebaud received nothing definite. Vigneron, another percipient, made a note, "Plaza of St. Mark in Venice"!

8. R. W. put on a pair of unusual dark spectacles in order to remain completely in darkness; all around him was brilliantly lighted. See Figure 4 (a). He thought exclusively of Mlle. Galand.

Mlle. Galand received the idea of a pair of scissors; but Vigneron, another percipient, made the drawing of a man

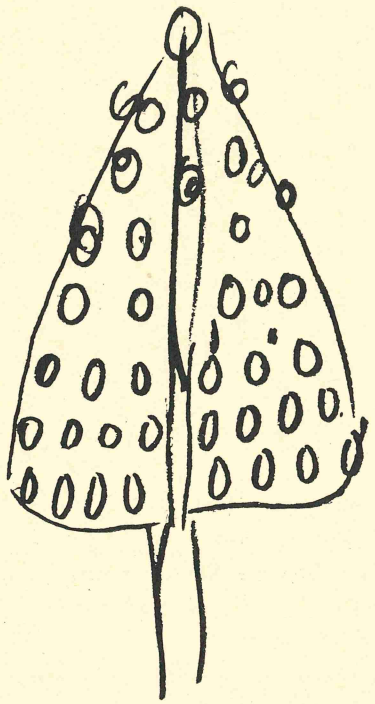


FIG. 14. 5 (b)

with strange spectacles shown in Figure 4 (b).

9. Broquet, in Belgrade, made the following statement in a letter: "At five and at six o'clock in the evening, French time, I tried to transmit, especially to Bonnet, the idea of a pine tree, sketched roughly on the page attached. [Figure 5 (a).] I thought also of a Christmas tree, with things hanging from its branches."

Bonnet received nothing definite, but Mme. Sauguet tried at five o'clock to receive from Broquet, whom she knew to be traveling. She sketched a Christmas tree; see Figure 5 (b).

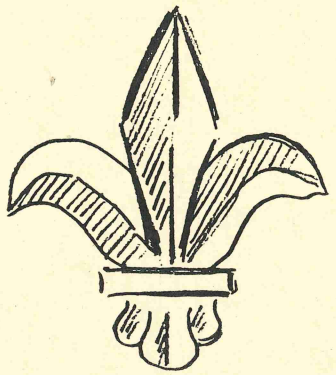


FIG. 14. 6 (a)

10. Laflèche, who was about three miles distant, imagined himself in the drawing room of the *Institut* with the percipients, especially R. W. He sketched an heraldic *fleur-de-lys,* then completed the drawing with cross lines to shade certain parts, as in Figure 6 (a).

R. W. received nothing true, but Mme. Fernandez imagined that she was looking over the shoulder of Laflèche, whom she had seen only once. She made the three drawings shown in Figure 6 (b). The first one may be considered an approximation, and the third a correction of the first impression with an interpretation of the original. The second corresponds to Laflèche's final shadings. No doubt this indicates paranormal perception of the movements of the agent's crayon. This perception of shadows, independent of the principal sketch, appears to me to have great theoretical importance, and to be specifically telepathic. I wish to point out that Mme. Fernandez, in another series of meetings, received messages from an agent whom she had never seen, and who was, at the time of the experiment, at sea.

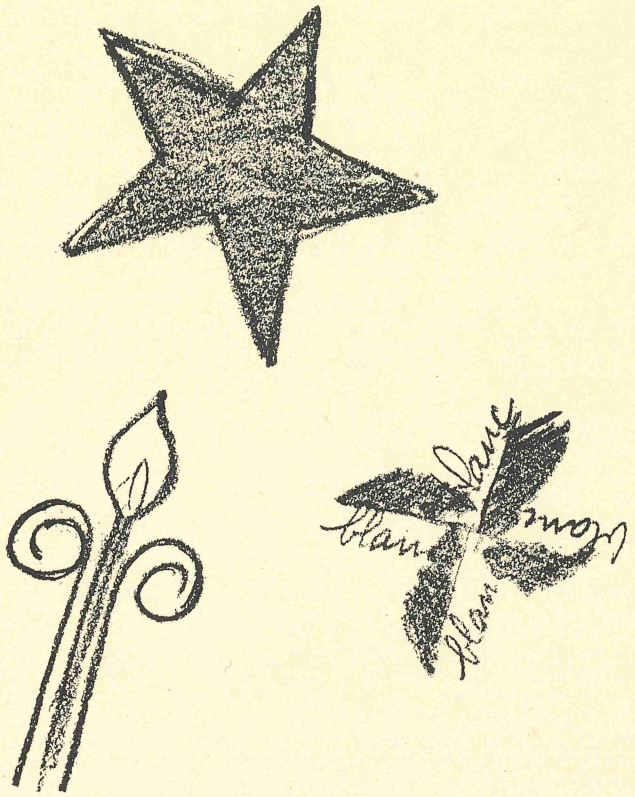


FIG. 14. 6 (b)

Our conclusion is that, under the conditions of our experiments, the wish of an agent to reach one selected percipient has no effect.

B. *The Percipient's Imagination Is Oriented Toward a Selected Agent.*

11. R. W., as agent, looked at a drawing representing a leaning telegraph pole. On the sloping wires were perched swallows. See Figure 7 (a).

FIG. 14. 7 (a)

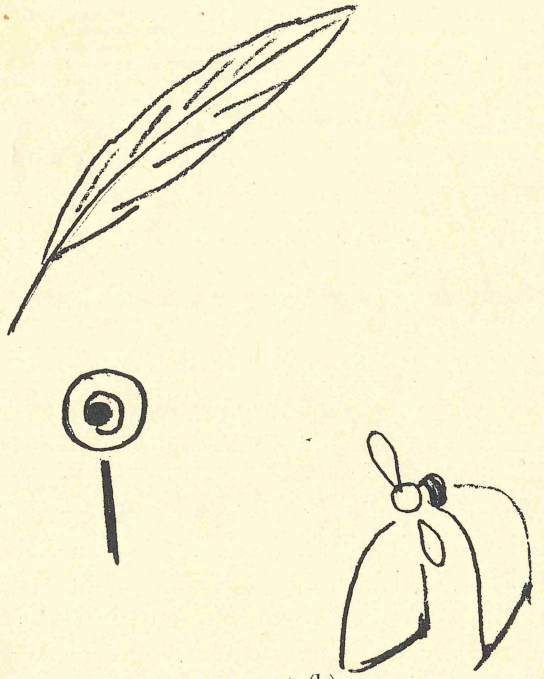


FIG. 14. 7 (b)

FIG. 14. 8 (a)

Bonnet, a purely passive percipient, did not go in thought toward the agent. Bonnet thought of the agent, but made no particular imaginative effort. He drew a bird's feather, a railroad track with a standard signal light inclined with regard to the rails, an airship motor and a balloon, as shown in Figure 7 (b). The fragmentation of the message and the rôle played by association of ideas are typical.

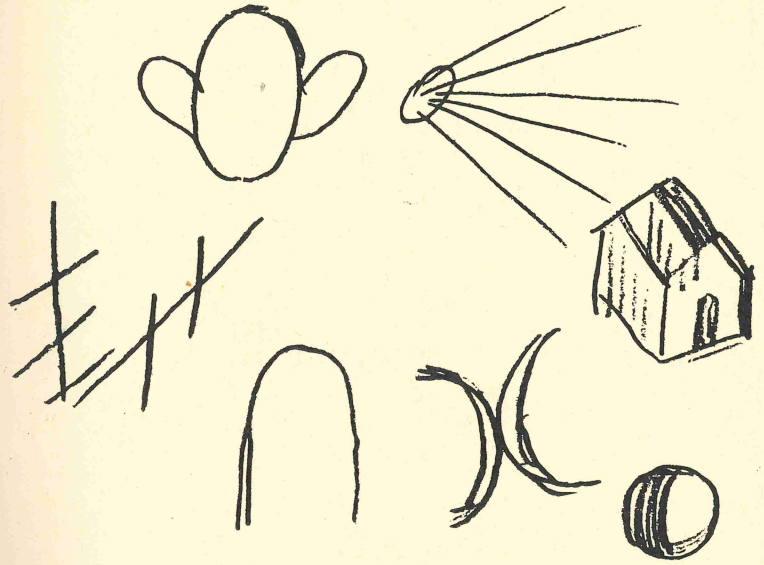


FIG. 14. 8 (b)

12. Vigneron and Devresse, acting as agents, looked at a photograph of a soldier feeding some twenty pigeons. Devresse made a drawing of the soldier feeding just one pigeon.

Mme. Darvers went in imagination toward Devresse. She saw the "head of a young bird, opening his bill very wide, a nest, and the idea of a bird and of young birds."

13. R. W., as agent, looked at three line drawings of the full moon cut from an advertisement. See Figure 8 (a).

Mme. Roger, a rather passive percipient, made three unfinished sketches; then (1) a star lighting the roof of a house "very brightly," (2) two crescent moons, back to back, and (3) a sphere lighted on one side only, "like the moon." Figure 8 (b).

FIG. 14. 9 (a)

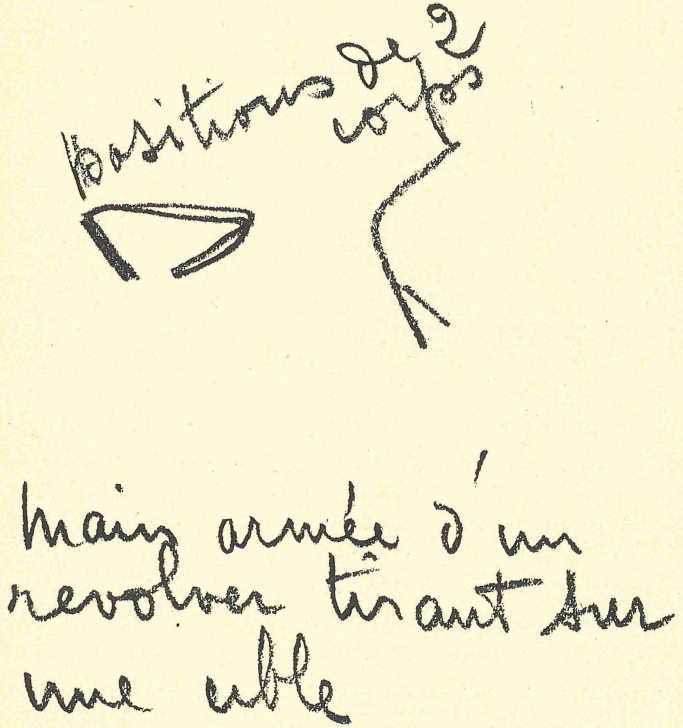


FIG. 14. 9 (b)

14. R. W., as agent, folded a filter cone of paper.

Dautry, the percipient, directed his attention toward the agent, drew some lines resembling the folds of the filter paper, and a hand with the index finger pointing.

15. Mme. Roger, acting as agent, sketched a large blowfly.

R. W., the percipient, with an effort of attention toward the agent, sketched (1) a bunch of grapes, (2) a map of France, and (3) a large fly.

16. Vigneron, acting as agent, drew a man, a warrior, holding a lance and wearing a toque-like hat.

Mme. Sauguet, without passivity, but with her thoughts directed toward the agent, wrote, "a pointed object, a man dressed in white, and with a skull cap on his head." She sketched the pointed object.

17. Vigneron, as agent, drew a man running, pursued by a bull, as in Figure 9 (a).

Mme. Fernandez, very passive and concentrating as before, drew a line diagram indicating the position of two bodies, one standing, the other lying horizontal; which was correct. See Figure 9 (b). But she also added, "a hand armed with a revolver, firing at a target," which was incorrect. Mme. Sauguet, another percipient, neither concentrated nor passive, but thinking of the agent, wrote, "A man standing in a position of equilibrium, with one foot raised, one arm folded."

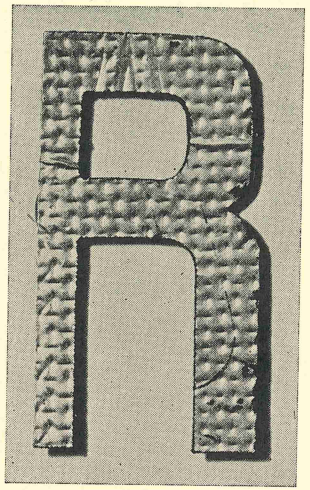


FIG. 14. 10 (a)

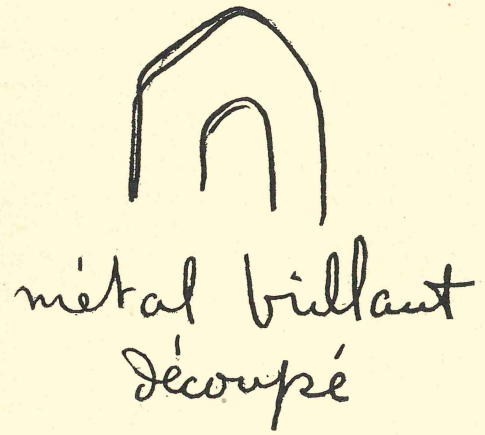


FIG. 14. 10 (b)

18. R. W. looked at three aluminum cut-out letter R's, like the one shown in Figure 10 (a).

Mme. Fernandez wrote, "A crucifix, two arches [Figure 10 (b)], bright metal cut-out."

We should note here that six percipients saw interesting details in this experiment, which came after a series of thirteen others in which we had particularly attempted to keep the identity of the agents from the percipients. Each was reciprocally agent and percipient — agent at the beginning of a trial, percipient at the end of the same trial — in an effort to determine experimentally with whom each person was in accord at the beginning of the meeting. In spite of the chance probabilities thus offered, we obtained totally negative results. This type of experiment had previously proved to us that there is no "reciprocal telepathy." For example, if the agent and percipient attempt successively to be agent and percipient in a very short time or simultaneously, that is, if the agent thinks of a dog and at the same time of the percipient, and if the percipient thinks of a trumpet and at the same time of the agent, we have never found, even when the percipient receives the idea of a dog, that the agent receives the idea of a trumpet. There was nothing in our experiments to make us believe that there had been psychic communion between the agent and the percipient. As to contagion between percipients when all the experimenters were acting as percipients at the same time, nothing indicates the existence of an Eggregore — as occultists understand it — a common psychic personality. In other words, nothing has indicated that a collective personality of the group could be formed.

19. Devresse and Buraud were both supposed to be agents, but in reality Devresse was the only agent. This was an attempt to ascertain whether the percipients, having oriented their minds toward both agents, would perceive one of them or the other.

Devresse went through the motions of putting on a glove.

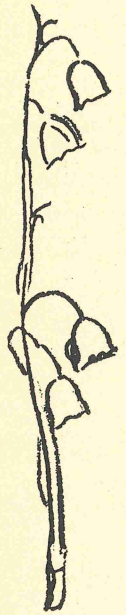
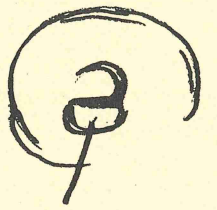


FIG. 14. 11 (a)



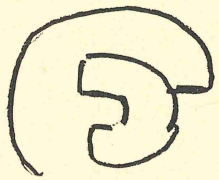


FIG. 14. 11 (b)

Buraud, who was in reality a percipient, received nothing correctly. Mlle. Galland, one of the percipients, who had thought more about Devresse than about Buraud, sketched two crossed, gloved hands. She received nothing associated with the perceptions of Buraud.

20. In this trial the experimenters were alternately agent and percipient. Bonnet attempted to put them in accord by giving them common tactile sensations. For example, Mlle. Bestel had a little pasteboard box in her hand, identical to one held by R. W. The others had different objects, to harmonize them in pairs. R. W. did not know who had a box like his, and neither did Mlle. Bestel.

Mlle. Bestel sketched a flower, a lily of the valley, as in Figure 11 (a), and thought of a forget-me-not.

R. W. received impressions of a blue flower and of a flowery basket. "This is in a metallic apparatus like a telephone stand [of a French phone]." In fact, Bonnet was thinking of a telephone stand, as agent for another person who did not receive his message. See Figure 11 (b).

Because of the fact that Bonnet had prepared the experiments, we concluded that the subconscious of R. W. had been aroused and oriented toward Bonnet. This would explain the curious confusion of the two perceptions.

The experiments have proved to us that, if the percipients are forced to make a choice between two or more agents, there is usually no clear success, but rather only coincidences between the percipients themselves. This we have called mental contagion. It may be that orientation of the percipient's thoughts is a favorable influence only because it tends to produce mono-ideism. There are other cases of transmission absolutely independent of the wishes of the experimenters, devoid of all intention, but appearing to be due to a sort of spontaneous accord.

These cases of metal contagion between percipients have appeared continually in our work. We might classify them as follows: First, the case in which several percipients receive the same images, which images, however, have no relation to the agent's message. We observed these at each meeting, and almost at each experiment. We may say that an image could be born in one's mind, independently of a sensation, by an afflux of blood of a certain quality in a particular region of the brain. Memory consists of the dynamic power of rebuilding a perception revived by an excitation of central origin, instead of the usual peripheral origin. These sensations could be stimulated as well by an artificial electrical excitation if we could limit it to the useful cortical elements.

We might suppose that a certain poison taken by several

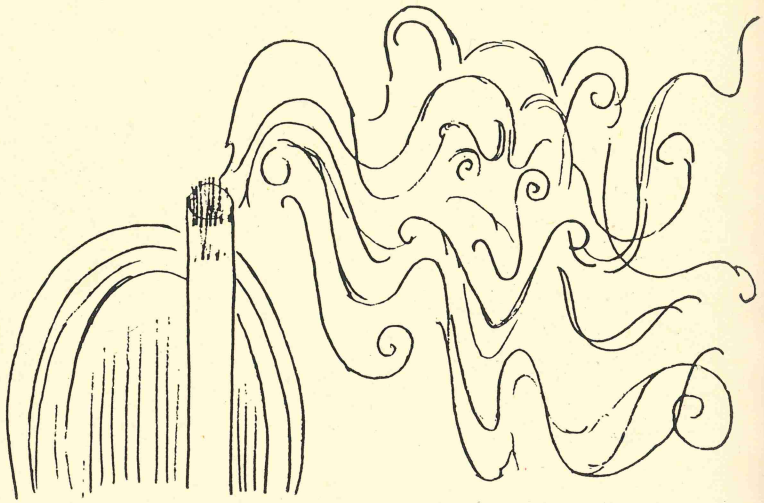


FIG. 14. 12 (a)

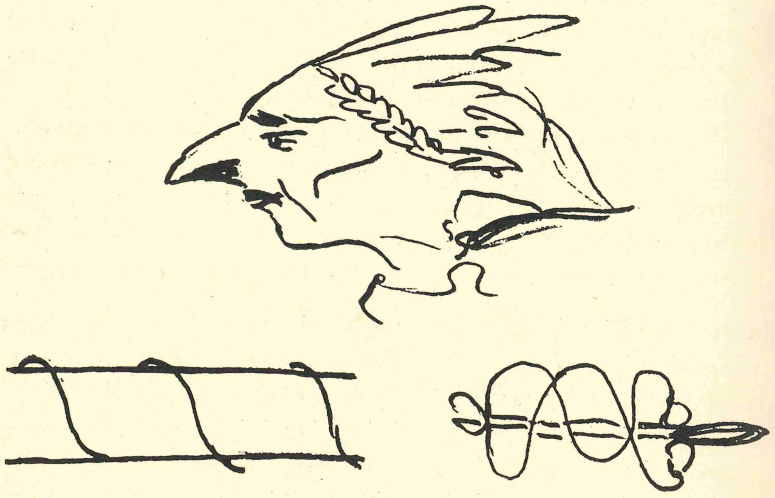


FIG. 14. 12 (b)

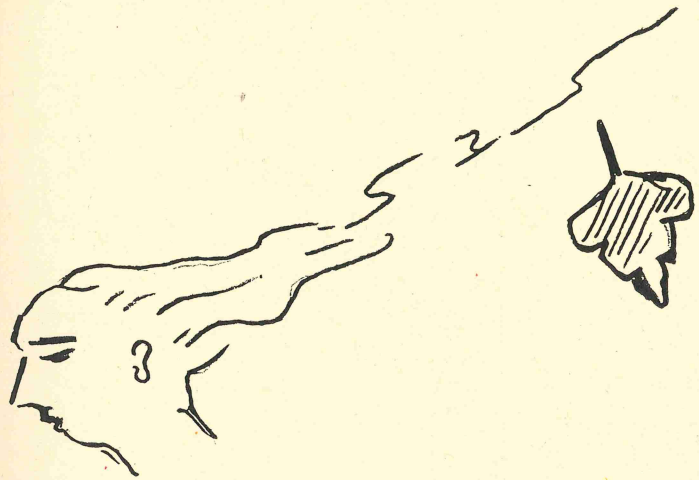


FIG. 14. 12 (b′)

persons would produce among them an intoxication of a particular cerebral region, and that they would see the same images without telepathy. A physical agent, or a group of physical agents, constituting the atmosphere of a room, could perhaps produce a phenomenon of this kind.

The second classification of mental contagion between percipients is made up of cases in which images have an evident connection with the agent's message. In the present experiments the agent is always separated from the percipient, who is in a room on another floor of the same building.

21. In this experiment Devresse, acting as agent, sketched a cigarette, the smoke from which curled to form an apparently human head with an eagle's nose. See Figure 12 (a).

Bonnet, the percipient, received an impression that he expressed as follows: "A full-face view of a lion's head, a picture of an Indian's head, *smoking*." This he drew in profile, as in Figure 14 (b). Vigneron, another percipient, drew some sort

of smoke spirals, and again a head of an Indian. His drawing is reproduced in Figure 14 (b′).

Bonnet in this experiment certainly seems to have been agent for Vigneron, since the impressions received resemble each other more than the original message.

Why was Vigneron more closely connected with Bonnet than with the actual agent? There might be several reasons; but the one that cannot be ignored is that the conscious relationship that should be established between agent and percipient was impeded by the conscious *rapport* previously established between two percipients.

If, when a couple has functioned, one of the two makes contact with another person, the first are still in accord with each other; therefore, apparently, *rapport* is not immediate between an agent and the percipients, and their first experiment may be negative. But rather than change the agent, it is better to continue with him; the second and third experiments may be positive. Afterward, however, one must stop, and then continue with other experimenters, for it seems as if a kind of energy has been drawn off.

Briefly, the lesson learned from these experiments in telepathy is that no telepathic training is possible for percipients, except for them to develop their visual imagination to permit the telepathic message to manifest itself.

Among the various methods of training the imagination, that of Mrs. Sinclair seems to me to be particularly suitable. When this result is obtained, there is no further progress. We have not demonstrated conclusively the usefulness of any training on the part of the agent. Nevertheless, I do not wish to cast doubt upon the conclusions of experimenters such as Gibotteau, Ochorowicz, de Sainville, and Kephren. We must admit that our faculties of visualization have been insufficient to associate mentally the image of the object to be trans-

mitted with that of the visualized percipient whom the agent is trying to reach.

Lending support to this hypothesis is the fact that, in exceptional cases in which a message arrived at its intended destination and not at another, this was effected by material association of images, such as would occur in looking at a chosen drawing pasted on the photograph of a percipient. Whatever the interpretation of this method, it may be considered as the simplest, from the agent's point of view.

We shall have occasion to return to this question, for there are other procedures, almost mechanical, which may increase the agent's chances of success; but this study is concerned only with subjective and practical methods of training.

As for us, we have not yet found a method for repeating the percipient's results at will, much less the agent's. It is possible that more fortunate experimenters than we — and I am thinking particularly of Gibotteau — have observed these methods during states of concentration absolutely different from those of our subjects at the *Institut*. Our friend de Sainville, who was preeminently successful as an agent, was also a remarkable percipient, and was in both cases in the habit of producing in himself a state of profound mental concentration.

We must not forget that the greatest agents could put themselves into mediumistic states, and could produce more or less profound states of artificial or natural sleep in their percipients.

Under the conditions of our group experiments, the will of the experimenter, whether agent of percipient, has produced no appreciable results. The phenomena of elementary telepathy which we have been able to produce appear to us to be as independent of the human will as are all the other phenomena of nature. They are concerned with a sort of

accord of images visualized by an agent with the images occurring in the minds of the percipients at the moment of perception.

The spirit continues to "blow where it listeth." Far from considering ourselves magicians and sorcerers, commanding the elements, we find ourselves constrained to obey the laws of nature and, above all, to study them.

CHAPTER XV

Telepathy or Thought Reading?

The Role of the Agent

In our experiments, the rôle of the percipient has always proved to be more important than that of the agent. The wish to transmit a selected message to a selected percipient has not given the results expected. Most often the message was received by a percipient for whom it was not intended, the intended percipient instead receiving another message.

We have encountered cases of contagion between two percipients taking part in the same experiment with one particular agent. These cases are so frequent that they have compelled us to offer the proposition that when several persons are in accord with one agent, they are in accord with one another.

In the course of our recent experiments, we have had occasion to verify a case of contagion among three percipients not in accord with the same agent. It becomes necessary to correct or to extend the theory of telepathic accord previously formulated.

When several persons are in a similar state of consciousness, they are spontaneously in accord telepathically. I shall now present facts supporting this statement.

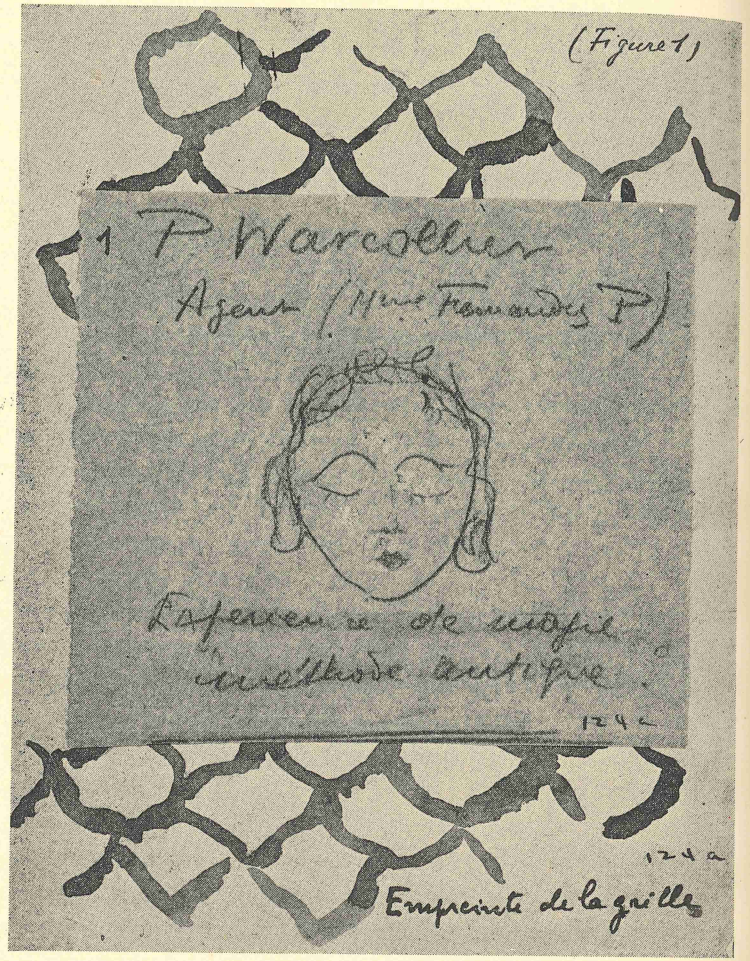


FIG. 15. 1 (a)

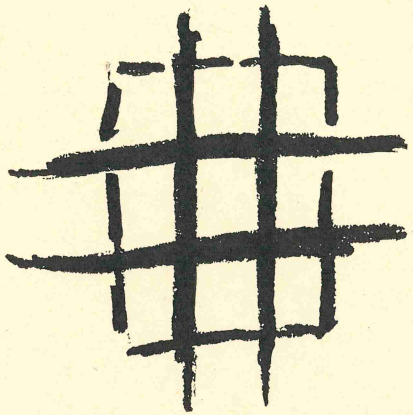


FIG. 15. 1 (b)

First of all, we formed several telepathic couples to work simultaneously. These were Pierre Warcollier (son of R. Warcollier) and Mme. Fernandez; Salomon and Mme. Sauguet; Mlle. Galand and R. Warcollier. Now for the experiments.

Pierre Warcollier had sketched diagrammatically the head of a woman, as shown in Figure 1 (a), and had attached the sketch to the middle of a drawing of a large metallic grillwork from a library poster. He then pierced the face and the grill with the point of his pencil, thinking of the percipient, Mme. Fernandez, and of the emotional idea of sorcery. Salomon at the same time sent to Mme. Sauguet the idea of a little gauge and hammer. Mlle. Galand, also at the same moment, sent to R. W. the idea of a child skipping rope in the park.

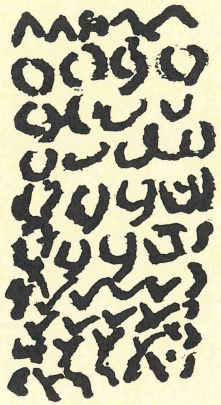


FIG. 15. 1 (b′)

Mme. Fernandez received an impression of interlaced metal wires forming a spiral, and of a *prison* (underscored in the original). Consequently, the message sent her was not received, although she did receive the accessories of the message, the metal wires of the grill, which led to the idea of a prison, a very vague interpretation of the message.

Mme. Sauguet did not receive Salomon's message; but she did receive the idea of a brutal police officer, of a grilled opening shown in Figure 1 (b), of a winding stream, of a key to the fields, and a light. She came rather close to Pierre's message, and particularly to Mme. Fernandez' impression. We find the idea of a prison under the form of the association of ideas by contrast, the idea of liberty.

Finally, R. W. did not receive Mlle. Galand's message at all, but he sketched exactly the grill to which the face had been attached. See Figure 1 (b′).

Thus the metallic grill, which did not form the principle message of the agent, the "perceived without understanding,"

influenced three persons as if an image captured by one percipient thereby acquired a new dynamic force which rendered it perceptible to the other percipients. The idea of a prison was not in the agent's consciousness, but nevertheless it came to two percipients. It seems as if it was Mme. Fernandez who influenced Mme. Sauguet.

However that may be, this experiment illustrates our theory, that is, that the capacity of an agent to direct a message is quite limited, just as is the capacity of percipients to direct their thought toward a given agent. In the course of experiments that followed, we sought to reproduce conditions similar to these that had occurred fortuitously, proceeding from the hypothesis that had so often been suggested by our work, namely, that what is most successfully transmitted is precisely what one has not thought of transmitting.

1. *The Procedure of Transmitting the Poorly Seen by Simultaneous Repression.* The message consisted of two images, one occupying a large surface, the other placed at the center and occupying only a small part of it. The central figure was fixated by the agent for several minutes, until retinal fatigue occurred. According to our hypothesis, the other part of the image, being in the indistinct part of the field of vision, should have been transmitted. The agent fixated the black cut-outs of the images of huntsmen and printed words, scarcely legible at the distance from which he saw the drawings. The printed words were poorly seen. The agent had the impression of parallel lines, causing eye strain.

Mme. Sauguet received just that – impressions of parallel horizontal lines, of moving lines, or air bubbles and of fish, and of movement of a calm nature.

As in the preceding experiment, we find again the play of

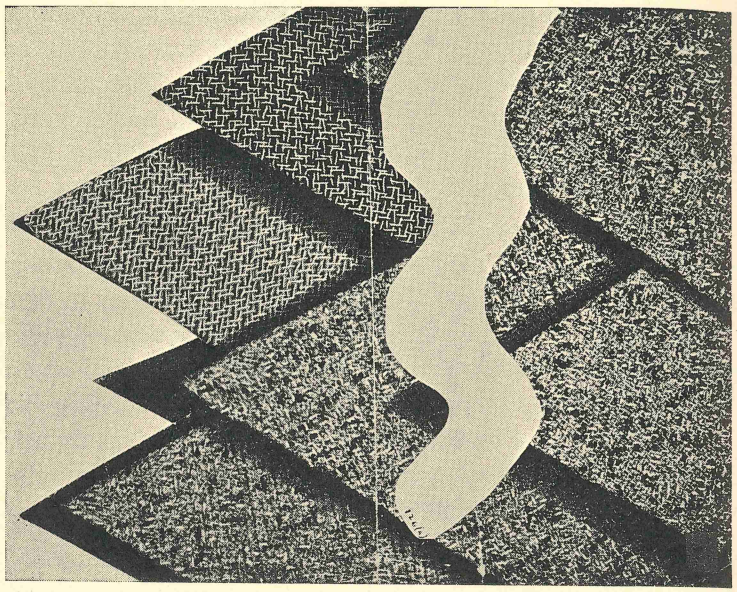


FIG. 15. 2 (a)

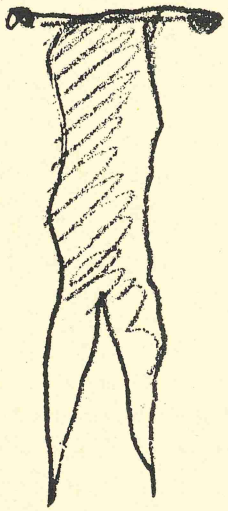


FIG. 15. 2 (b)

association of ideas of the same nature. Nevertheless, in this case the associations wandered far from reality.

In the next experiment I fixated a wavy white band pasted in the middle of a large paper, shown in Figure 2 (a). The lower edge was cut out so as to form angles. I wished to see if the percipient would get the idea of the curved lines which I fixated visually, or of the angles in the indistinct part of my field of vision.

Mme. Sauguet wrote, "Union, marriage, procession, banners," and sketched one of the banners – the acute angles that appeared at the bottom of the page. See Figure 2 (b). In this case, contrary to that of the preceding experiment, the subconscious association of ideas in the reception of this telepathic message approximated reality. It would seem as if Mme. Sauguet had had a psychic flash of my cutting angles in the paper, which was associated with the idea of banners, but that this idea, having remained subconscious, gradually aroused the idea of procession, wedding, marriage, and union. It was the last term, *union,* that first became conscious; then *marriage,* then *procession,* and finally *banners.* The work of the conscious mind consisted in following up the chain of association of ideas.

This experiment illustrates perfectly the rôle of the imagination in telepathic reception. It allows us to grasp the process of distortion of images by association of ideas. Unfortunately we have not succeeded in using this play of association as a process in the development of the telepathic faculty, although we have frequently tried to.

In another experiment we varied the procedure. The method consisted of using the picture postal card in Figure 3 (a), showing two or more items of interest. The card remained under the eyes of the agent, but he directed his atten-

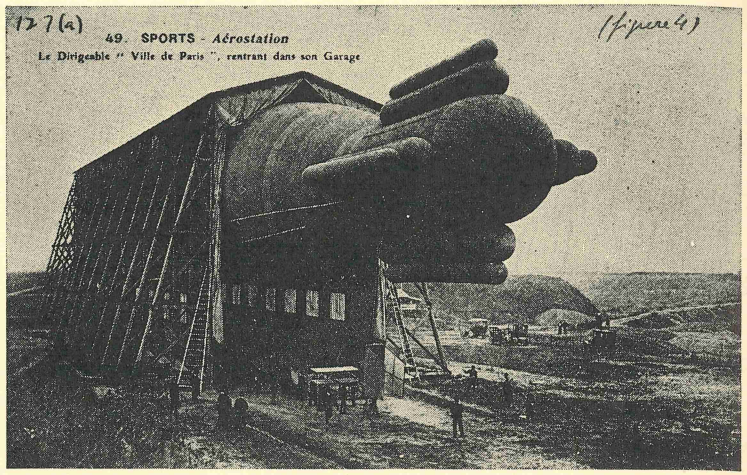


FIG. 15. 3 (a)

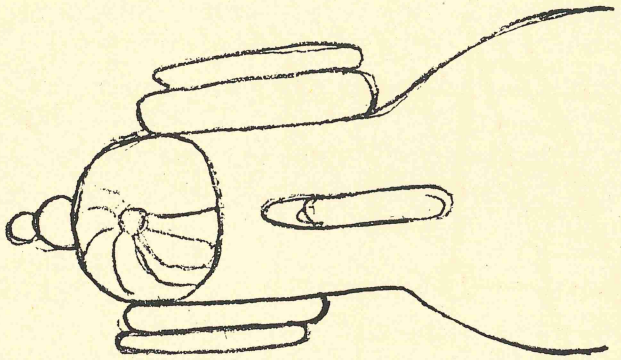


FIG. 15. 3 (a′)

tion to one item by copying it, as in Figure 3 (a′), and thus by detaching one element from the whole, he subordinated the rest of the picture. The card chosen in this experiment represented an old dirigible halfway into a hangar. I, as agent, drew the rear of the dirigible without the hangar.

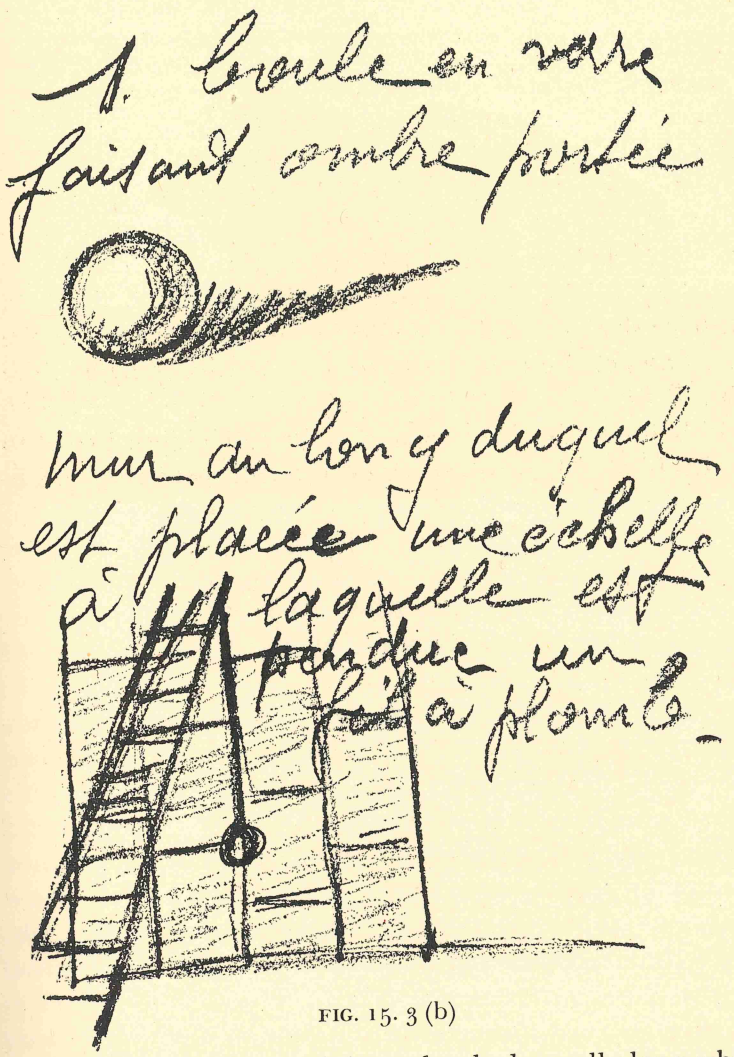


FIG. 15. 3 (b)

Mlle. Galand, the percipient, sketched a wall along which a ladder was placed, and added a plumb line, expressing symbolically the inclination of the ladder. See Figure 3 (b).

The supports on the sides of the hangar resembled ladders, and they gave the effect of ladders leaning along the wall. In this experiment also the part of the image which was subordinated was the part which was transmitted.

A method associated with this transmission by means of simultaneous repression, and which appears to me particularly worthy of interest, consists in employing the phenomenon of *colored shadows*. Briefly, when the field of vision is bathed by a light of one color, the objects seen in this field will have shadows of the complementary color, provided the other parts of the field are lighted rather dimly by a white light.

Without ever having shown it to the percipients, I tried to use this kind of light when my experiments permitted me, as agent, to do so. Quite recently, during an experiment on March 12, 1937, I lighted my office with a violet light. Everything had shadows of a beautiful yellow, on a background tinged with violet. From our point of view, it is interesting to know whether the percipient will get the impression of violet, the real color of things, or of the complementary color of the shadows, yellow. This is yellow only for our own retina, or for our optic center, or even, according to some authorities, for our imagination. The results of this experiment appeared even more striking.

The percipient, Mlle. Canel, wrote, "Many objects, not very definite, but surrounded by, or contained in, gold. I see much gilt." Thus the percipient had seen not the real, objective coloring of the objects, but, peculiarly, the subjective color which had no reality, except in my own mind.

I have searched through my notes for an identical experiment made on December 9, 1926, with de Sainville as percipient. It has not been published previously. I used the same monochromatic apparatus to light some acute angles with

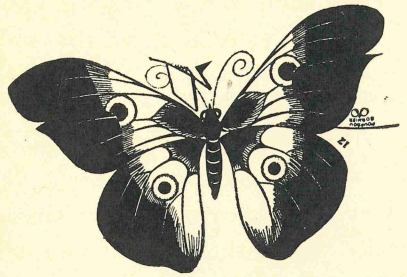


FIG. 15. 4 (a)

violet light. The percipient wrote, "Luminous points of yellow, angles, luminous triangular plates, points of gold set on the blue of a large cloth, violet twilight." The percipient perceived the real color in this case, but he *first* perceived the contrasting colors of yellow and gold.

We have previously mentioned the phenomenon of color contrast. Once a helmet of gold, embroidery of gold, and a breastplate of gold reached the percipient as "metallic violet."

2. *The Transmission of the Poorly Seen by Successive Repression.* In one experiment of this type, the procedure consisted of looking at an image for a rather short while and laying it aside, then looking at another, or else remaining passive, dismissing all thoughts and forgetting the image entirely. From among a hundred envelopes containing previously prepared drawings, I chose two. I opened one of them, and looked at the drawing. It was the drawing of a butterfly shown in Figure 4 (a). (The process of emission of the recently forgotten is excellent, provided that the object has been truly perceived with interest. It appears to be easy, however, to detect an emotion, no matter how slight it may be, or how latent, if it is not being experienced by the agent himself at

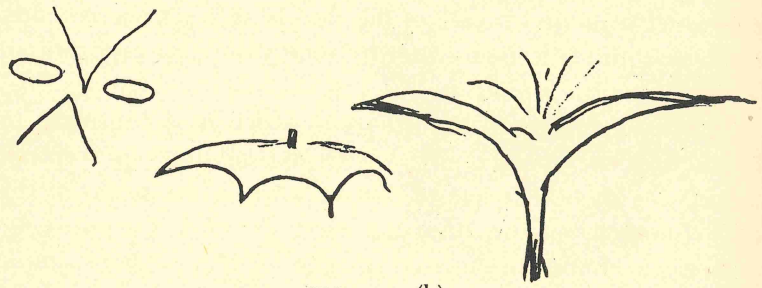


FIG. 15. 4 (b)

the actual time of the experiment.) I replaced the drawing of the butterfly and held the envelope in my hand. In the other hand I held the unopened envelope. I remained passive, without thought.

Mlle. T. Canel drew the figures shown in Figure 4 (b), from which the idea of a butterfly developed. The unopened envelope contained a drawing of boxers.

It has been observed that this experiment, as well as several preceding, presents another theoretical interest of the greatest importance. This is to find out whether the paranormal knowledge of the percipient is due to telepathy or to clairvoyance, for the agent seems to play only a secondary rôle. If the percipient really has the active rôle in paranormal perception, he could draw his knowledge from the mind of the agent, or from the object itself.

Our extended researches confirm those of Rhine, as expounded in *Extra-Sensory Perception*.[1] We are not certain that we have realized the phenomenon of telepathy, considered as the passage of a message from an agent to a percipient. However, it is relatively easy for a percipient to detect a state of mind, an experimenter's thought, especially if it be un-

[1] *Boston Society for Psychic Research*, 1934.

expressed, a mental image of the poorly seen, or the recently forgotten; and it is even easier to obtain the impression of an attitude or of a sensation.

In our experiments, the question which now confronts us is whether the subject gifted with extra-sensory perception detects the mental image of the drawing in the mind of the experimenter, or the drawing itself directly. Certainly he detects purely psychic mental images. Of that we have ample proof. But he also detects the visual images present. Does the impression come from the mind of the agent or from the object itself?

The question is serious, and much more complex than appears at first glance. Let us consider, for example, the experiments described in this chapter, keeping in mind the three hypotheses: those of telepathy, thought reading, and clairvoyance.

1. *Experiment with the Metal Grill.* A grill was covered with a piece of paper bearing a drawing. An agent in a room at some distance from the percipients pricked this paper, with *feeling*, through the grating. The emotional state of the agent was able to provoke a "vibratory" state which made some sort of appeal to the passive percipients. That is where the secondary rôle of the agent would seem to have been played – in the sending out of an S.O.S.

The sensitivity of three percipients was involved. One perceived a grill and a detail of the frame; the other two perceived the grill first, for the woman's head seemed to them to be behind the grill (since they had had the idea of a *prison*, whereas the agent could not have had this idea for he *saw* the head in front of the grill, not behind it). We must admit, therefore, that the grill had acquired a paranormal vibratory state, attractive to the sensitivity of the percipients. In this

experiment, the hypothesis of direct clairvoyance of the object has a certain verisimilitude, a clairvoyance aroused by a telepathic appeal from the agent.

2. *Silhouettes of Huntsmen on Printed Words.* Direct clairvoyance should have shown the silhouettes, rather than the parallel lines of words, but what *was* perceived was what the agent saw poorly. Here, the likely hypothesis is that the agent's obscure sensations were transmitted. The agent has played a negative but indispensable rôle.

3. *Banners.* Probably the same conclusions can be drawn here.

4. *Colored Shadows.* Direct clairvoyance is improbable; rather, it is here the reading of the agent's obscure sensations.

5. *Butterfly.* The image not looked at by the agent was not received by the percipient. Direct clairvoyance of the object would, in this latter case, be secondary to the agent's perception.

We performed an experiment to verify this hypothesis. I looked at a very complicated picture of people at a picnic, and fixated the center. The drawing was held vertically, quite close. It was lighted feebly by daylight. But the other side, on which there was a picture of a number of children eating at a table, was strongly lighted by an electric lamp. I wished to see whether the percipients would perceive the better-lighted side of the page at which I was not looking, or the poorly lighted side at which I was looking. Almost all of them saw the details of the side at which I was looking. Not one of them had the slightest idea of the children. Hence it seems that we can draw the conclusion that it is the reading of the agent's thoughts, rather than direct clairvoyance of the object, which generally takes place. When this phenomenon

does apparently exist, it often seems to me to be influenced by the agent's glance. Therefore the agent would, in my opinion, have a positive rôle in a great many cases.

The Hypothesis of Psychic Charges

The influence of the agent's glance may have two interpretations. Telepathic phenomena happen as if the percipient were looking with the agent's eyes. But this does not explain why the percipient often sees the drawings as if he were behind them, that is to say, as if they were reversed. It may be, then, that looking at an object gives it a *psychic charge,* perceptible to the percipient. It is this working hypothesis that we are now going to consider. It is only reasonable, if we admit, with Bergson, that perception is exercised upon the object itself. In *Matière et Mémoire* he writes, "External objects are perceived by me where they are, themselves, not in me." In so far as this concerns the hypothesis of psychic charges, it seems to me necessary to add that it is the first perception of an object that can be perceived as of itself, the subsequent perceptions being for the most part continuations of our memory.

If that is so, every object observed for the first time by me can reflect me as I reflect it, at least for a certain time. It has a certain psychic charge from me, and it also retains the impression that I have had of it, just as I have a memory of the object. A percipient in a state of clairvoyance might, then, have a particular attraction toward an object which had been recently seen by the agent, rather than toward another which had not been seen.

This psychic-charge hypothesis would explain many of the cases of psychic phenomena and of haunting. It is now my favorite interpretation for the case of the phantom package in my bedroom, related in the first chapter of this book.

This hypothesis would also give value to the frequently made observation that when one looks at a person's back, he will turn around, especially if one looks at him for the first time with surprise and interest.

This seems to me an improvement on St. Thomas Aquinas' explanation of the "evil eye" as a "harmful action of the imagination transmitted by spirit animals through the eyes, and carried afar on the air." It would explain why, in the fine experiments done by Brugmans in the psychological laboratory at Groningen, the agent who was myopic had good results with his subject only at a short distance, where he could see the subject's hand upon the tablecloth.[1] It was not sufficient that the agent should know the letters corresponding to the case, which should have been enough if the percipient had received by telepathy or thought reading.

This hypothesis would explain why a color which has been looked at by one person before being put into a closed envelope, can be perceived by clairvoyance when it is no longer a color, since it is in the dark. It explains why a card that has been looked at, then shuffled into a deck, can be picked out again with some facility by a clairvoyant. It explains why a phrase written on a paper, which is then folded, can be read, as in the experiment in which devices were put into walnut shells and drawn by chance. It explains contagion of error, as shown in the following experiment that we did with dowsers.

The figures from one to ten were written on ten cards which were turned over, mixed up, and spread upon a table. The problem was for the dowsers to find the card with the

[1] A note about the Brugmans technique. The subject passes his hand over a squared board, each square being designated by a number. The agent selects, at random, a particular square of the board and attempts to make the subject tap upon that square, guiding the subject's hand mentally. For a full account of this particular experiment, see the *Report of the First International Congress of Psychical Research,* 1921. — Ed.

2 written upon it. The first dowser designated one card with his wand. The three other dowsers, who had not been present at that first attempt, designated the same card, which was not No. 2. It seemed as if the first card, which had attracted the attention of the first dowser, had become the bearer of a psychic charge, attractive to the other dowsers.

One understands better, with this hypothesis, why Ossowiecki cannot perceive, by clairvoyance, the latent image of an undeveloped plate. It explains collective hallucinations, and especially the apparent objectivity of certain images in a magician's mirror. The psychic charge which remains in an object that has been looked at, is a visual reflection; but if the object has been *heard,* there is an auditory reflection, like noises in a haunted house.

The psychic charge can teach us nothing, of course, about molecular organization or the intimate structure of matter, since it exists on the human plane. Clairvoyance can teach us nothing outside this plane.

An intense psychic charge can reflect its influence upon neighboring objects. That is to say, it can act in space as well as in time. It seems to have a certain active potentiality which would make of it a sort of telepathic agent of the second degree. According to this hypothesis, objects could, *so to speak,* remember those who had perceived them, just as they could "remember" objects that surround them, if these other things had been perceived at the same time as themselves. *But they could not remember things which had surrounded them if no living being had been able to perceive those things.* That is what distinguishes this hypothesis from that of *astral patterns.* The memory of the observer would be only *one particular case* of the psychic charge. Also, clairvoyants do not see any difference between the remembrance of an object and the object of this remembrance. Their

paranormal perception passes easily from one to the other without their noticing it.

In the light of this hypothesis, our theories on repression are clarified. The *poorly seen* is the *free* psychic charge, not attached to the observer, and easily grasped by the percipients. It is not in the least psychological; the idea that it would have expressed is not perceived.

If the psychic charge is fleeting and yet has a momentary interest, it becomes a recently forgotten memory, easy to detect. If interest persists, it becomes a present remembrance, and the psychic charge is entirely possessed by the one perceiving it. Our experience has led us to think that an emotional apperception, repeated but fleeting, is the most favorable type of apperception for telepathic transmission. I might compare it to the angler's floating cork which reappears frequently, as in hypnagogic illusions. Psychic charges are sometimes so mobile that they can even leave the percipient's memory, at least momentarily.

What I said of the psychic charge as concerning two persons can be applied correctly to the relation between the subject and the object. What we call the *memory* can pass from one to the other, back and forth, like the liquid in communicating vessels. It would be interesting to find out whether this psychic charge could be only in the space occupied by the person who has had the perception, or whether it could be in the space occupied by the object perceived, but not in the two places at the same time.

The hypothesis of psychic charges permits an interpretation of many cases in which the telepathic hypothesis appeared inadequate. In the course of thirty meetings in 1927-1928, although we found a higher percentage of success for telepathic experiments than for those done with envelopes or

closed boxes, we had successes which had to be attributed either to clairvoyance or to the new hypothesis.

Certain subjects seem to succeed as well with telepathy as with clairvoyance. De Sainville, Mme. Sauguet, Mlle. Cousinet and Dufour do better with clairvoyance, however, and Darrey and I do better with telepathy; but as our experiments have not been particularly concerned with this question, the data are not sufficient to support conclusions.

Sometimes the result can be interpreted by several hypotheses. For example, Buraud prepared an envelope which he gave to Bonnet. He knew its contents, a Chinese playing card. Bonnet described some hand-written characters, large and heavy, the idea of "lettering," perhaps a musical sign, and some scribbling, the whole giving perfectly the impression that he had perceived the Chinese characters on the card, but not the central personage. That could be explained by telepathy, by clairvoyance, or by the perception of a psychic charge.

In another experiment a hundred different postal cards were placed in opaque envelopes. Since these cards had been looked at by someone, they had psychic charges. One envelope was selected by chance. Bonnet described two persons, and made a drawing resembling one of them. Telepathy is not the explanation in this case. The psychic charge gives adequate explanation.

In another experiment, Mme. Darvers brought to the meeting a package wrapped in a newspaper and tied with a string. The package contained a frame surrounding a decorative motif cut in gilt metal. It represented on the right side a rising sun sending out rays, and butterflies in a special material, painted orange.

Dufour made a sketch of the rising sun sending out rays to the right, and of a cross of the Legion of Honor, similar in form to the wings of the butterflies, and then of a general and

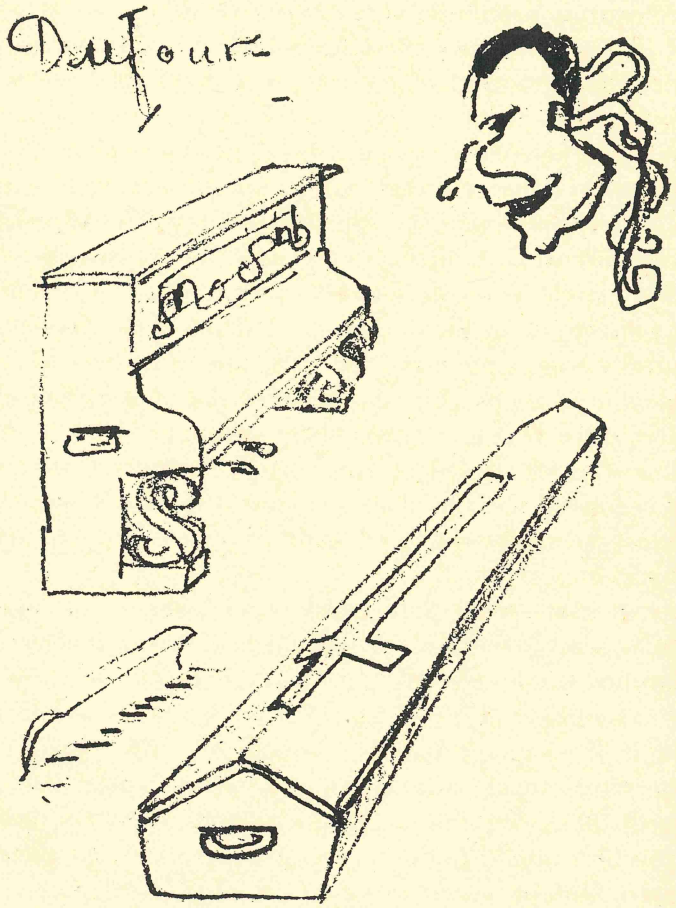


FIG. 15. 5 (b)

an army. In this case, the subconscious imagination got the upper hand of the paraconscious inspiration. But Dufour described the parts as in relief, on tinfoil or gilt paper — correct descriptions. Therefore he had correct impressions of the sun, its place, the rays, the gilt, and the relief. In spite of the errors, that is more than is necessary to make this experiment a great success.

Was that telepathy? It is doubtful, for the most important element for Mme. Darvers was the special material of which the butterflies were made. It is a material which has prismatic colors only when held up to the light for transparency. But Dufour knew this material and was interested in it, but did not perceive it. In the darkness of the package, this material naturally would not have the prismatic colors. Gold is not golden in darkness, but nevertheless that was perceived. If clairvoyance were concerned, if the image had been seen as a vision through opaque bodies, can we maintain that what was perceived was the opaque, and not the transparent? But a transparent material is transparent only relative to certain radiations.

As we have already said, clairvoyance behaves just like our human senses. It could as well present to us images more magnified than is possible with any microscope, but this does not take place. It perceives what human eyes would have seen if the package had been open. Dufour perceived the same visual image as a previous observer would have perceived. Thus the best explanation is given by the concept of psychic charges. In the following experiment, the same percipient, Dufour, seems to have perceived by telepathy.

Devresse looked at an engraving on a book, *Les funérailles de Wagner*. Dufour sketched a mask symbolic of tragedy, a piano, a keyboard, and a coffin decorated with a cross. See Figure 5 (b). Thus he perceived the two elements of the mes-

FIG. 15. 6 (a)

sage, the ideas of a funeral and of a musician. But he did not reproduce the catafalque drawn by Devresse. In the experiment of the rising sun, previously mentioned, the message was not understood, as is usual; but in the present case the message was understood rather clearly.

In another experiment we find the percipient detecting the message by clairvoyance and thought-reading at the same time, without being able to account for it. In a closed envelope, mingled with others, was a design of blots as shown in Figure 6 (a). These blots had been made by me a long time previously, using a stencil and other designs. The stencil, which had come with a child's paint-box, was one of a number intended to illustrate the fable of the frog who wished to make himself as big as a bull. This one was a detail of the illustration, a tuft of grass at the feet of the bull.

When the closed envelope was given to Bonnet, no one knew what it contained. I took part in the experiment myself, and drew a pyramid, which seemed to indicate very well my conscious and subconscious ignorance of the contents of the envelope. Bonnet, however, described as well as possible this curious figure. He called it a *"cloisonné,"* and described a painter's palette, pincers and a bull's head; he also drew a pyramid as I had done. Thus he had perceived by clairvoyance, rather than by vision through an opaque body. Not only did he see the form of the design, but he even traced its

origin. He recorded the reflection of the experimenter who had placed it in the envelope; and, *rapport* having been established, he drew what the experimenter was drawing at that same moment. This method of "seeing" is confirmed by Osty's writings on *Clairvoyance.*

Thus the extra-sensory activity passes without effort from the object perceived to the one who has perceived it, and does not distinguish the object from the subject, as if a bond united them. We think that the hypothesis of psychic charges which we have postulated can explain the nature of this mysterious bond, as being due to the fact that the perception occurs as much in the object perceived as in the subject perceiving it.

We are particularly happy to find an analogy to our conceptions in the conclusions expressed by Jean Charles Roux and François Moutier in their report to the Second International Congress of Psychic Research in Paris in 1927, *Conditions de la perception métagnomique et problèmes de psychologie.* Regarding this hypothesis they say:

"The memory impressions on the brain would be identical in nature to those which may impregnate any material object . . . memory would be a general and common quality of all matter . . . the impressions would be of a similar order, whether on the object or on the brain of the consultant. . . ."

Vision Through Opaque Bodies

Are we justified in declaring that clairvoyance is impossible except in cases in which the object has been seen previously by another living person? Evidently not. The extra-sensory perception of springs by dowsers seems proved; subterranean excavations, mineral veins, bodies of drowned people carried away by the waters are all found in the same way. No perception — at least, no human perception — could have

taken place under these conditions. But now there arises the question of emanations, of radiations which, in the case of particular metallic ores, are perceptible by certain sensitive electromagnetic apparatus.

We have tried in the course of experiments in clairvoyance to see whether it would help to use the luminous radiations emitted by phosphorescent and radioactive zinc sulphate. This is in itself luminous without preliminary isolation, because of the traces of radium that it contains. I wished to find out if a lighted object is easier for a clairvoyant to detect than one not lighted. Various objects were arranged, each in its own closed box. In fifty boxes of the same dimensions I put objects of approximately the same weight and wrapped them in cotton wadding. Once the boxes were sealed and mingled, even I did not know which object was being used in the experiment. In thirty-five of the boxes there were thirty-five different objects — grains, crystals, small souvenirs, etc. The other fifteen boxes contained fifteen articles lighted by permanently luminous phosphorescent screens or luminous drawings.

With the thirty-five boxes containing non-luminous articles, there were six partial successes. With the fifteen boxes with lighted objects, five experiments with very luminous screens gave four partial successes; and ten other experiments, with more or less luminous drawings, also gave four partial successes. My conclusion is that success appears to be facilitated with intensity of illumination.

I shall describe some of these experiments. A disk of very luminous blue sulphate of zinc was placed on a watch crystal. On the disk was a brass plaque perforated in a diamond-shaped design, and underneath it a plaque of brass perforated in rectangles. The whole was wrapped in cotton wadding and enclosed in a fastened box.

The percipient, a clairvoyant, received "a clown's suit checked with little diamonds of yellow and blue."

In another experiment in this series, a magnifying glass thread counter on a nickeled brass frame with three feet was placed on a radium-bearing luminous screen. The feet of the frame were on the screen. The entire thing was placed in a box.

The same clairvoyant began, "A sort of tripod, three feet which are joined at the center, as if with three rays, a foot of a copper vase . . . something bright in there . . . cup, mosque, pillars." He drew a cupola with three pillars.

In another experiment, a circle and eight rays were made with phosphorescent paint on a black cardboard which was then placed in a box. The same percipient said, "A cross, a double cross, with eight branches." Another percipient saw "a rectangle with diagonal lines."

In these experiments, vision through opaque bodies was involved, facilitated by luminous radiations. In the experiment with the magnifying glass, the clairvoyant did not see the scintillation of the radium which I wished him to see. He would have seen it had he looked at the luminous screen in the middle of the lens with his own eyes. This is the same contrivance that Crookes called a "spirit horoscope." In this case the clairvoyant did not know of the interesting phenomenon, and saw the tripod of the magnifying lens "lighted from beneath." We might suppose that, in seeking for subterranean waters or for mineral veins, certain natural electromagnetic radiations could in some way illuminate and make them perceptible to sensitive subjects, such as "sorcerers." Nevertheless, it is not the radiation which would be the cause of the extra-sensory perception, but the extra-sensory perception which acts upon the radiations as upon the psychic charges. If the percipient makes no particular effort in either

one case or the other, it is because there is only a difference of degree between the vibrations whose directions draw the material forms, and the psychic charges which are also organized vibrations. The cause of the extra-sensory perception is not *of* the vibratory world, but it exerts force *in* the vibratory world. Before seeking the intimate essence of this cause, we must point out that the vibratory state, although unknown vibrations may be concerned, appears indeed to be the physical basis of perception. That is what seems to us to indicate the relation of the latter to space.

Telepathy and Space

We believe that we have shown that space appears to play a certain rôle in telepathy, which would support our belief that extra-sensory perception cannot be considered as purely *spiritual*. Certainly distance has not seemed to us to have any importance. What does seem to have an influence is a change in the agent's spatial position. When, during the course of a series of successful experiments, the agent remained in the same place, or when the percipient did, and then absented himself for another experiment, things happened as if the percipient had lost track of the agent. For example, while I was out one evening I did an experiment with de Sainville, he thinking that I was at home. He wrote me, "Contrary to my usual custom, I saw almost no images. My experiment was done very carefully. This absence of images is very exceptional. I tried in vain to call up images." It seems as if the percipient senses, above all, the space surrounding the agent, appearing in some way to haunt this space. The following statements belong in the same category of interpretation.

When one of the members of the telepathic group died, we

tried for several meetings after the death to remain passive, thinking of him meanwhile exactly as we had as percipients, when he was sending us messages. The result seems worthy of mention. We observed in the most conclusive way that the percipients had images, not of the deceased friend, but images which symbolized their active efforts toward an inaccessible end, characterizing the futility of their efforts. For example, after the death of Archat, Bonnet, on October 27, 1928, perceived a "chain held horizontally across the field of vision, an infinitely long barrier." In the course of this series of trials, Buraud saw once and I saw twice an endless spiral.

It is not only in the sense of the percipient going to the agent that there seems to be produced a psychic displacement in space. A letter or a visit is frequently perceived in a dream by the percipient, not at the moment when the letter is written or the visit projected, but while the letter or the individual is arriving at the destination.

For instance, a person sent me a letter, addressed to a place in the country which I had left. The letter was forwarded to my address in Paris. I dreamed, during the night immediately preceding the delivery of the letter, of the second person who had sent the letter on to me. It was as if the letter was carrying a psychic charge of the second person, having neutralized that of the first, and was making itself felt during its displacement in space, traveling in my direction.

In similar cases, everything happens as if our deep personality was lying in wait for the psychic charge, and knew that it was approaching.

We think that it is not necessary to conclude too quickly that extra-sensory perceptions are independent of space, as they may be of time. They are independent only to a degree.

We have noticed in our experiments that, when an agent effects some modification, such as a change of furniture in the

space that habitually surrounds him, the percipients perceive it. We know that it is not necessary for the change to be brought about by the agent. Percipients will sense a change in the aspect of a favorite place, if, for example, a storm breaks a tree there. I could mention several unpublished cases in which passing open graves has provoked clairvoyance in the mother of the deceased.

Relation Between Telepathy and Clairvoyance

It is quite true that in experimental telepathy the percipient has the principal rôle. His attention being attracted toward the agent, he is active, and his extra-sensory perceptions are very often clairvoyant. But it is easy to understand how this same subject, who can be active in some way in the space surrounding a person in order to detect his thoughts, would have trouble in giving us a clear idea of what a telepathic agent should be.

In reality, one can perfectly well maintain that, at the same moment as the thought is detected in our mind, we might become aware of that fact if we were sensitive enough. This indeed I think I have observed myself. One feels a kind of absorption, provoking a quite characteristic *absence*. I shall recall the well-known experiment of the empty chair made by Osty. At the hour when the subject was detecting her thought, Mme. H. felt herself taken with an illness which afterward disappeared. One step more and the image of Pascal Forthuny appeared to Mme. H.[2] He had apparently become the agent and she the percipient. It is only a question of degree from this to believing that the agent could make other images arise in the percipient's mind. The negative charge has become

[2] Osty, E., *Pascal Forthuny*, Alcan, Paris.

positive. But this could come about only under extremely rare conditions of mediumship.[3]

Not everyone who wishes to be one is a good telepathic agent. On the contrary, it is easy enough to be a good percipient in ordinary states of passivity. It is easier to capture the images of the poorly seen and of the recently forgotten which flutter around someone than to violate the sanctuary of his personality by introducing foreign elements. But it is indeed a question of the same phenomenon. The best agents are, according to our experience, the best percipients.

Telepathy and thought reading do not differ except in the direction of current, and this direction is susceptible of change in the course of an experiment. We arrive at analogous concepts by taking literally the expressions borrowed from physical science. According to Cazzamali,[4] in the passive states of sensitiveness a local oscillatory phenomenon is developed in the brain, and is perceptible with his particularly sensitive apparatus. These electromagnetic waves explore the universe. When they meet another force whose electromagnetic waves can interfere with theirs, there occurs an excitation of the state of consciousness which can translate itself into an extra-sensory perception.

The emission of waves would explain perfectly the agent's rôle in simple cases. Let us consider a spontaneous case. The agent, A, has an accident far from the percipient. P, the percipient, is impressed first by the sudden image of A appearing to his consciousness, then by a vision of the accident. The phenomenon could be of three kinds. First, a series of waves has been unconsciously emitted by A in all directions. Sec-

[3] See the experiments of Ermacora; *A.S.P.*, 1895, p. 352, and 1896, p. 153.

[4] See Fernard Cazzamali's report, *Phénomènes électromagnetiques rayonnant du cerveau*, made to the Fifth Congress of Psychical Research in Oslo in 1935.

ond, the percipient, P, who knows A and is already in accord with A, is already acquainted with this train of waves, of which he had kept an unconscious memory, as he might keep a conscious visual or auditory memory. P recognizes the series of waves from A and has his subconscious oriented toward A. The image of A would come to his mind. The electromagnetic waves of A have served uniquely as a call, an S.O.S.

Third, P receives an emotional shock in seeing A appear to him, and himself reacts to this appeal. His subconscious attention carries him toward A and he would have an extra-sensory perception of the accident. In our opinion, this perception is independent of the electromagnetic phenomenon which may accompany it in the mind of P, and it would not afford sufficient explanation of the phenomenon except in simple cases.

To sum up, in a case like this, the part of the agent, reduced to an electromagnetic phenomenon, can be called telepathy — a communication from one being to another without the use of the sense organs.

The part of the percipient may be called clairvoyance, or thought reading. It appears to us irreducible to an electromagnetic phenomenon, at least in the majority of cases, and this greatly reduces the interest in this interpretation on the agent's part.

Psychic charges, telepathy, and clairvoyance may perhaps function, as we have said, by vibrations of the ether, probably unknown vibrations; but they are also constituted of another element which does not appear to be of a physical nature. The organizing cause of these vibrations may be of a *spiritual* nature. Mysterious in its principle as this cause is, it is just as familiar to us because we are constituted of it. In our

opinion, paranormal knowledge does not differ from normal knowledge. It is the phenomenon of consciousness itself which constitutes extra-sensory perception. Man has a general sensitivity, more subconscious than conscious. It reacts to other men, to human objects, even to nature. One might say that the sensory sensitivity of consciousness is only one particular case of its general sensitivity. Animals have a general sensitivity of the same type. Plants have a sensitivity which is especially turned to the known forces of nature, such as light, heat, etc. Minerals are sensitive only to natural forces. Hence it seems that this particular extra-sensory sensitivity manifests itself only with a developed nervous system.

Extra-sensory sensitivity functions in greater space and in more time than does sensory sensitivity, but nothing proves that it may not be limited in time and space according to the importance of possible reactions. This extra-sensory sensitivity is perhaps inversely proportional to the sensory sensitivity or to the artificial means of increasing the reach of feeling. Playing an important rôle among insects and animals, it decreases with their domestication. Extra-sensory sensitivity is high among savage men. It is extremely reduced among civilized man, where it is found only in abnormal states in which intelligence is inhibited. In animals domesticated by man, it often becomes conscious.

The stars are influenced by one another, vegetation is influenced by universal gravitation and other natural forces, even insects are influenced by one another, and animals are influenced by all these factors and by man; but all this is without consciousness. The unique thing about man is that he can consciously develop this extra-sensory sensitivity. General sensitivity is perhaps a constituent part of all living matter, one characteristic of which is adaptation to environment. We must admit in the living cell a principle which goes be-

yond time and space, a faculty of attention to the life that creates its sensitivity, and a power of organization over the vibrations of the ether and over all crude matter, a factor of its evolution. An elementary consciousness exists in the living cell. Because of the extreme complexity of its chemical composition, a sensitivity is aroused by interaction with the environment in which the cell exists. This at first consists in its taking account, to a certain degree, of the fact that things exist around it which are not of itself. In feeling the action of the environment, the cell discovers the outside world. Thus, by contrast, it discovers the feeling of its existence. A localized psychic charge is born, and becomes sensitive to psychic charges of other cells. When complete accord between cells is realized, it results in the consciousness of the ego, found in advanced nervous systems.

We form part of the world; but because of the sensitivity of each of our cells and of their accord, we create for ourselves an inner world, into which we withdraw from the external world, resisting it. This we call our "ego." This internal world has limited its contact with the external world to the five senses. Nevertheless, it remains influenced by the external world, directly and continually, but unconsciously. Within this limited space, man has come to affirm his personality and its relative continuity. But the personality naturally evolves in the restricted world of our five senses, and not in the world that we should have been able to possess if these senses were more developed, nor in the world that other senses might have created for us — for example, an electrical sense. It is probable that if we were conscious of the electrical world, we should not have been able to isolate ourselves and possess a personality. This is precisely what occurs when we sever our contacts (sense organs) with the kind of world that is, for us, the external world.

Our confused perception of the world of the ether and the world of the phenomena of other consciousness arouses a multiplicity of conscious states, scarcely distinct, where, however, we easily recognize what characterizes us. What is awakened in us is what may constitute, for a longer or shorter time, a benefit or a possible danger to the existence of our vibratory constitution. This is the nature of spontaneous telepathy. When we wish to experiment, our attention must overcome all these possible reactions in order to occupy itself with the drawing or the card visualized. Hence the extreme weakness of these perceptions, without interest for the personality, made up of fear of annihilation. The knowledge of an object that we have by normal channels, the phenomenon of consciousness that it provides for us, apperception, is the reaction of our general sensibility to one particular case, for example, a luminous vibratory phenomenon. Then we say that we have consciousness of a visual image. But that the phenomenon of a retinal image, a vibration of the optic nerve, an excitation of the optic center, may have, at a certain moment, consciousness of its existence is as extraordinary as if a vibration of the ether, a ray of light, should feel itself to be existing when it is arrested by an obstacle, or if an atom should realize when an electron became detached from it. When a dowser discovers a spring, when a mother feels that misfortune has come to her child, when one senses beforehand that the train to be taken by a loved one will be derailed, it is not a more miraculous situation. Sensory sight is one of the forms of clairvoyance. It is apperception, the grasp of the environment by consciousness, that is the common fact of consciousness which should astonish us by its "spirituality" — a word expressing a characteristic inexplicable by matter, however ethereal it may be. But we do not know any phenomenon of consciousness without some points

on which to apply it. If consciousness could exist independently of all objects of knowledge, it would be the same as non-existent. Inversely, a consciousness that would have knowledge of all things at one time would appear more like those monstrous Hindu gods whose eyes look in all directions and whose multiple arms resemble nothing human. In reality it is quite difficult for us to keep a limited number of objects fully in mind at one time, since our attention is obliged to pass alternately from one to the other.

In sensory perception, the phenomenon of consciousness is applied to the vibrations of the ether transmitted by the senses. In extra-sensory perception, it is applied directly to the vibrations of the ether, and to states of consciousness other than our own. When the application is direct, what strikes us is its extension in space and time, because we are used to being limited to our five senses. It is necessary for us to restrict our psychic horizon to one spatial locale and to one temporal locale.

We enclose ourselves within ourselves, and this seems to be our present rôle, if we are not to be dissipated in a vibratory universe and scattered into a spiritual heterogeneity.

CHAPTER XVI

Conclusion

THE DIFFICULTIES met in telepathic transmission are increased by the fact that we try to provoke the phenomenon artificially. The proof of the existence of telepathy can be secured by experiment, but we pay a large price for what we get. Hypothetically, telepathy is composed of a psychological factor and an unknown physical factor. At first the importance of the former escaped us, but I have been led to give it more and more weight.

The imperfections of the methods of experimental psychology are well known. Abramowski[1] writes regarding the phenomena of paramnesia:[2]

> Can one study paramnesia experimentally? Can we produce at will, in the laboratory, the phenomenon which develops in life accidentally and unexpectedly? Such is the first question which presents itself when we approach the experimental problem of paramnesia.
>
> We might know in advance that under artificial conditions we could not produce just that psychic phenomenon, that intense illusion of great emotional disturbing power, just as it is manifested in life. No mental phenomenon, studied in a laboratory,

[1] *Le Subconscient normal*, p. 57.

[2] False recognition, "recognizing" something one has not really experienced before.

is the exact reproduction of what daily life gives us. We find in it, under those conditions something conventional, a certain lowering of potential. This has also its effect on the functions of attention. To surrender oneself, to permit oneself to be astonished, penetrated to the very heart, is very difficult, under experimental conditions.

Experiments on the *association of mediate ideas* illustrate all the typical difficulties. In this connection, Claparède [2a] remarks:

> If two images, A and B, are bound separately to C, without ever having been associated together is it possible that A can evoke B by the mediation of C, without the last becoming conscious? That is the whole problem of mediate association. . . . Does it not sometimes happen that, thinking of someone, we suddenly see the image of another person appear? And we tell ourselves that it is some resemblance that is at the bottom of the association, but we cannot find the common characteristic of the two persons, or we do so only after some minutes.

We have a typical mediate association in the case of the bird-tree, mentioned on page 209.

Yet the publication of sincere investigations will always interest professional psychologists, and I hope that my findings will draw their attention to the more obscure phases of their specialty which Grasset has called "the promised land of science." It is only to the psychologists and the *savants* who can devote all their time to disinterested study that the honor of conclusive experimental proof will come. As de Vesme asks, is not the work of amateurs merely to bring material to the scholars? I add my testimony to that of many others, certain that with time all honest seekers will arrive at a conviction. Experimentation is easy; the important thing is not to let oneself be discouraged by monotony. *It is useless, even harmful, for the progress of parapschyology, to indulge*

[2a] *Association des idées.*

in casual attempts. There is even less place for extemporizing in telepathic meetings than in simple experiments in physics and chemistry. We are concerned with a hidden phenomenon, difficult, but not impossible, to discover, if one has much time and great patience. To be the partisan of telepathy or to believe it to be something marvelous is much less important than one might believe. If such a belief is accompanied by the necessary seriousness to undertake research, it is not harmful, but it is not indispensable, especially to the *savant* who, though skeptical, is serious about the problem. Besides, he has the freedom of thought that the manual or intellectual worker who must earn his living has only in rare moments.

From the point of view of psychology, telepathy could, if studied by specialists, contribute greatly to the theories of imagery and of the relation between ideas and language. For physicists, research on the possibility of directing the telepathic wave is of the first importance. If it could be demonstrated that distance did not influence the phenomenon, spiritualistic theories would find a powerful argument. I do not believe, however, that the applications of telepathy in practical affairs could be very great.

The possibility of training in telepathy has been both affirmed and denied. My own experience does not permit me to be too positive, for I had important spontaneous phenomena before beginning to experiment. But it is certain that the state of mental passivity, the provocation of hypnagogic images by concentration or autosuggestion, the much neglected development of mental imagery, and finally the conscious selection from among impressions are not acquired all at once. Can it be said that by practice we can develop from poor or mediocre percipients or agents to good ones? We know nothing as to that.

Some people allow themselves to be influenced by *a priori* opinions. Occultists consider telepathy the manifestation of a quasi-metaphysical faculty which is of no use to us until after death. In this case, practice would be useless. Others, like certain spiritualists, believe that this faculty exists in us before our birth, and that it serves us between two successive lives, according to the doctrine of reincarnation. Still others, more "positivistic," find in telepathy an ancestral gift dating from ages when man had not yet acquired speech. And finally, there are people who see in telepathy the beginning of a new sense, the embryo of a faculty of the humanity of the future. Some of these hypotheses may be true. My own sympathy is with those who do not try to solve the problem by disregarding it. I think that one way of finding whether training is possible is to *try* it. I believe that it is necessary first to prove that we have found something, before making fine theories about it. The value of training, although probable, appears to me not well demonstrated, as I have mentioned previously. And practice will certainly not remove all obstacles. I do not much believe that future humanity will use telepathy as speech is used today, not only because telepathy is much less precise, but because externalized messages are always masked by our own thoughts. And although we admit that we might succeed, by the use of drugs, in placing ourselves at will in the special states in which conscious thought is annihilated, as in profound sleep, our desires would continue to steal into the messages, distorting them or falsifying them completely, or the earth would have to be populated by sages who had killed all their desires. But I believe that spontaneous telepathy will eternally remain a matter of the heart, and that it will always give better warning than wireless of dangers to which loved ones are exposed. "There is no sorrow that I can keep from thee . . . there is no hour when I am not with

thee . . . neither time nor space can separate us." (Richonnier.)

The practical applications of telepathy are doubtless very limited, yet research upon telepathy is like research upon radium – the precious metal is well hidden in the ore. Research in telepathy may revolutionize our concept of mind as much as the discovery of radium revolutionized that of matter. "Slow, irresistible, incessant, and unchangeable, so feeble in appearance that they were not discovered until our own time, the phenomena of radioactivity appear already as the ultimate cause of physical evolution."[3] Like radium, which until the present had only unimportant applications, telepathy seems to me destined to modify our philosophy profoundly. But let us not dream about its future. Let us encourage research, let us dare to hope. That is the work of science.

Telepathy and the Problem of Spiritualism

Because such eminent scientists as Crookes, Lodge, and James have been willing to consider the hypothesis that telepathy permits communication with those whom we believe dead, we must seriously consider such a view. Indeed, the literature of spiritualism is filled with facts which the student of telepathy must consider. Nine-tenths of all telepathic phenomena differ completely from those intentionally chosen for description here. These have taken place at the death or after the death of the agent, the most curious being the S. P. R. experiments with Mrs. Piper.

In a state of trance provoked partly by autosuggestion, Mrs. Piper gave messages in automatic writing, purporting to come from deceased relatives of the various consultants. The hypo-

[3] F. Soddy, "Radioactivité et l'évolution du monde," *Revue scientifique*, No. 18, 1919.

thesis of fraud was eliminated by the scientists who studied her for a period of more than thirty years. They had her "shadowed" and were positive that no normal sources of information were consulted. They analyzed the messages with every scientific precaution. Often these messages contained facts known to both the consultant and the deceased. Sometimes the facts were unknown to the consultant, but were found, upon investigation, to be correctly stated.

As for me, telepathy from the living is a quite sufficient explanation since I believe that it occurs constantly and continuously among *all* living beings, asleep or awake. But as great scholars have been converted by striking cases to a belief in spiritualism, I recognize my obligation – in order to interpret all the facts – to extend this interpretation well beyond experimental deductions, while remaining always in contact with them. This necessary extension is permitted to us; it is authorized by the hypothesis of the general radioactivity of matter, "slow, irresistible, incessant, and unchangeable."

It may be interesting to consider whether our hypothesis gives a better account of certain difficulties than even the spirit hypothesis, although that may well be the master key. To do so, let us look not at the opened flower of Mrs. Piper's *mediumship,* but at its roots. We shall find the problem simplified. In the beginning, Mrs. Piper did not give such convincing proofs as later. One might say that her paranormal faculties were perfected by usage. The personalities of the "spirits" were also less marked at first. I find these personalities more interesting than the later ones, because they lend themselves better to psychological analysis. They belong, of course, to the category of Mrs. Piper's subconscious personalities, but their knowledge greatly surpasses that of the medium. Could this be provided by an extremely complete telepathy with those who consulted her or with absent per-

sons who knew the dead? Or might it come from the dead themselves? We may not adopt this last hypothesis, so contrary to all our actual knowledge, until we have completely eliminated the others. Now, in the beginning of her mediumship, Mrs. Piper's paranormal faculties did not function automatically. It was necessary to "start the ball rolling" by giving to the *personality,* the "spirit," an object that had belonged to the deceased, whereupon she would tell the story of the object, and of others more or less related to it.

I think I can see in these gropings an analogy with the association of ideas through an unconscious intermediary. W. Jerusalem reports the case of Max von Baumgarten, who described the following phenomenon:

One evening, seated at work, he was suddenly obsessed by the image of an old man led by a young girl. He tried in vain to dismiss the image, but it persistently returned. He described the miserable clothing of the two persons who appeared to him. He also saw the region where the meeting took place on a crossroad on the edge of a forest. Struck by this vision, von Baumgarten then remembered having seen the place thirty years previously. Where did the memory-image come from? He looked around and investigated, consulting maps and cards as well as the books about him, but without success. He rose from his table and suddenly stopped before a bouquet of flowers. Here was the key to the enigma. Hidden among larger flowers, there were several little flowers of *pyrola uniflora.* He had found this plant for the first time at the edge of the forest near the crossroad where he had met the two people of the vision. He never thought of them again, until their image was revived by the unconscious impression of the odor of *pyrola.* The inductor was the unconsciously perceived odor of the flower.

There is an analogy in a paranormal case from *Phantasms*

of the Living, which I quote briefly. The Reverend P. H. Newnham was going with his wife along a road bordered with hedges, when she said to him that she smelled violets. This was in November, 1873, and of course no violets were to be found; but it had been at exactly that spot that, in March, 1861, he had picked a bouquet of violets for his wife; he had not since been there. In this case the inductor was the unconscious remembrance of violets which induced, telepathically in another person, the odor of violets. In the imagery of the second person there had been a void which the first person had been able to fill by telepathy.

Having recognized the existence of psychic radioactivity, I am ready to admit that each human personality is composed of a plexus of fibers of collective associations, constituted by veritable lines of force of wave character. This would explain to me why the medium, Mrs. Piper, telepathically adept, could perceive whether the jewel that one gave her was incomplete; there is a void that an unconscious telepathic message from either the sitter or some other living person fills. That is why it is necessary to present some object which will serve, we say, as a point of departure — will serve, in fact, as an inductor to subconscious and collective association of ideas. That is why we must fragment the phenomenon to catch it.

This hypothesis eliminates the occultist's conception of *influence* or of *astral patterns* enmeshed in the object. Such conceptions are disproved by the fact that one can replace an object by a photograph, and yet obtain startling results. I see in our present hypothesis a general explanation of the phenomena of haunting and such psychic puzzles. Naturally this interpretation is not simple, since it involves the theory of psychic charges as well, but nothing in nature is simple.

I should believe this hypothesis capable of explaining a

great many cases of spirit identification — possibly all of them, if the study of these phenomena were not so varied that one meets in it embarrassing facts, frankly not explained by our hypothesis.

Telepathy and Religious Opinion

In recent years a real change has come about in public opinion regarding telepathy and psychical research. This is in great part due to the S. P. R. Catholic opinion admits, at least implicitly, the existence of telepathy, as we understand it. I speak of telepathy with the living, for we know that telepathy with the dead, if it exists, is absolutely forbidden. The authority here is *Saint-Office,* April, 1917; *Acta,* June 1, 1917.

Protestant opinion, in general, recognizes telepathy. The conference of 252 Bishops of the Anglican Communion, under the Archbishop of Canterbury in 1920, studied the subject of spiritism. They concluded, "The conference recognizes that the result of investigation has led many people to believe in survival. We are ready to accept the research, criticism, and investigation, within the limits admitted by sane reason." They wished, they said, to prevent the acceptance of any theory before it was established on solid and unquestionable foundations. But they felt that the existence of telepathy had been established.

Jewish opinion is, in general, not hostile.

Hindus and Buddhists not only admit telepathy, but make of it an article of faith.

Theosophists, who have undertaken to popularize oriental doctrines in the occidental world, make a distinction between the different means employed for transmission.

The Philosophy of Telepathy

H. G. Wells, in *God, the Invisible King,* traces a grandiose plan of a universal religion based on the conception of a collective humanity. For him, humanity is constituted of elements less different than they seem. Individualism does not exist in the human body, where each cell may believe itself independent, while it is bound to all the others and works toward a common end. Wells shows how men participate in the same blood by heredity; but in my opinion, his chief concept — that salvation consists in man's feeling himself a member of Collective Being — can be meaningful only through telepathy. For to constitute one being, it is necessary that each element shall not be isolated, but shall be able to act directly and intimately on the others.

Despine writes, "In human society there is no more distance between the individuals than there is, respectively, between the atoms of a crystal." That is true; but in a crystal, each atom, constituted of whirlpools of electrons, influences its neighbors in such a way that groupings of atoms and molecules form an agglomeration. There is a veritable collective personality, living a definite existence, whose limitation by the surrounding environment creates a body in geometric form. Therefore the personalities of the atoms count very little in this collective being. Atoms can easily be replaced, like men of a regiment, without modifying the form, on condition that they are of the same constitution. We must conform to the law of isomorphism. Ordinary alum, composed of sulphate of potassium, sulphate of aluminum, and water, is a colorless salt whose solution crystallizes easily into octahedrons. It is easy to replace the potassium in this molecule by ammonium, sodium, or lithium. Or the aluminum may be replaced by chromium or iron. The original colorless crystal carried in one of these solutions continues to grow, as if

it had remained in its original solution, taking on successively layers of rose color with aluminate of iron; then violet, with aluminate of chromium, etc. Subjected to variations of temperature in these solutions, it will use for its growth smaller crystals of any of these salts. If they had consciousness like man, these crystals would suffer; and if they were gifted like him with activity and intelligence, they would have the feeling of their personalities, complain of their lot, try to escape from it, and, like man, revolt.

As Pasteur has shown, this crystal will heal its own wounds if one mutilates it intentionally. It directs the deposit particularly to the injured points, in rose or violet, either with the aluminate of ammonia or the aluminate of sodium. If all the solutions are mixed together, the crystal takes all the components to itself, following its architectural plan in spite of the differences in materials and the obstacles that have been placed in its way.

The forces which are released from atoms have conquered the distance which separates them, and have created a collective being, not inert, but, on the contrary, more alive than the atoms themselves. Why should not the atoms which we are, have the same properties? But then the personalities of the atoms of the crystal, Humanity, on the path of growth would not have much importance. White, black, yellow, red — our subconscious minds interpenetrate in the ether. I am well aware that the concept of the subconscious is only hypothetical; but is the ether itself any more than a hypothesis? It is only a reflection of experimental needs, an indispensable environment, as was water to the development of the crystals discussed above.

But this rough analogy can give us only a feeble idea of what that collective being would be, since man himself, whose body is constituted of billions of cells in interrelation,

is only one drop in the sea. As a muddy sea whose tidal flow fills the crevices in the rocks and the cavities formed by the changing folds in the terrestrial surface, creates little seas, each with a personality, so the ocean of life fills the void in brains in the process of formation. In a word, telepathic influences are added to hereditary influences. At the ebb tide which is death for our little inlets and pools of water, the cavities are emptied as brains are, but the water which is drained from them returns, all the more clear, to the common sea. These concepts are not new, for one finds them expressed in the most ancient documents of humanity, in the sacred books of India, the Vedas. "Just as pure water poured into pure water becomes one with that water, so also the Self of the sage becomes one with the possessor of wisdom."[4]

But, some will say, the good and the bad, the civilized and the savage, the genius and the brute, are all composed of the same coarse matter, carbon, nitrogen, hydrogen, oxygen, etc. Hence they would also have the same psychic energies. Why not? The diamond — so pure, so white, so hard — has exactly the same chemical composition as charcoal — black, dirty, and soft.

Fusion into one collective being is not incompatible with a certain form of survival, but only with that doctrine of mummification of the human soul which teaches that we remain the same forever. For a human being of certain emotional tone, it would be this tone, mingled with others of the same value, that would survive. One may say that to each state of personal consciousness would correspond a special vibration related to a scale of a spectrum of consciousness. The mingling of all these would be colorless. Human brains would be differently colored screens, each letting filter through only its own colored light whose origin is lost in the

[4] From the Kathopanishad, Section II, Fourth Part, 15.

past. But these colored projections lighting the future would suffice to maintain an equilibrium between the rights and the duties of man. Thus would be assured that collective justice, of which we feel in ourselves an imperious need, as we do of spiritual nourishment.

Moral and Social Consequences

As we have, at least provisionally, abandoned the hypothesis of telepathy with the dead, let us leave it to H. G. Wells to draw all the possible deductions from telepathy whenever he comes to realize that it is a faculty not confined to his Martians. Let us simply ask now what rôle telepathy plays in the world as we know it, and if it extends to all men, and, perhaps, to all living creatures.

Among men, exceptional accord would leave room for half-conscious telepathy only in the case of love or friendship; and collectively, only in crowds, such as public gatherings, concerts, audiences, and, above all, in those religious assemblies where everything is arranged to develop harmony. Mystical experience receives help under these conditions; and one thus understands better the profundity of friendly relationships, the influence of affectionate thoughts on our relatives, and the psychic reality of a family atmosphere or a national spirit from which we cannot escape. The "soul of a people" ceases to be a meaningless expression. The world of morals admitted by all religions, which had not been able to find room in our system of knowledge, now finds its place there. Conscience recovers its voice — a weakened echo of telepathic accord. The *brotherhood of man* seems to have a scientific basis.

Telepathy, constant and implacable, brings to all the human race support or trouble, pleasure or care. Each living person emits many aspirations, desires, fears, emotions, and

impressions which impinge on all other persons, helping or disturbing them in their tasks.

Even aside from the spirit hypothesis, there is no death for us, in the sense that we are sure that all that there is of good or of bad in us will survive in the subconsciousness of Humanity – conceived as a thinking collective being – in the process of evolution. Even more probably we shall survive in the general subconscious of all the living matter of the universe.

The unity of matter has been guessed by the alchemists in spite of the diversity of appearances. The unity of the spirit has been discovered by the alchemists of thought, the earlier philosophers. The hypothesis of nomad souls, created independently of one another, appears to me to resemble strongly the ancient concept of elements. It is perhaps condemned to vanish with that concept.

Moral solidarity among beings of the past, the present, and the future is the counterpart of the biological law of the evolution of species. Telepathy is the natural law which we unconsciously obey when we seek to form groups, to assist one another, to join together. It is vain to found human work on hatred when the law is *love*. We communicate, we do not excommunicate.

For the first time, science illumines with a still uncertain light the command to "love one another," a fundamental principle of all religion, of all morals, of every political system, from which one cannot deviate. Justice and love, love and justice, words inscribed synchronously or alternately on the two distant poles of human thought, of the Orient and of the Occident – the theory of virtue, according to Hindu wisdom.

"We are all the same man, I am you and you are I." Or, to express it in modern terms, we are the electrons of the atom of Humanity.

GLOSSARY

AGENT – The source of a telepathic message.

CEREBRAL CORTEX – The thin outer layer of the cerebrum.

CLAIRVOYANCE – Extra-sensory perception of an object, as distinguished from extra-sensory perception of a thought or mental process.

COENESTHETIC – Pertaining to sense impressions from within the body (e.g. hunger, nausea), but not including the kinesthetic.

COMA – Suspension of all or nearly all mental activity.

DISSOCIATION – Tendency for different mental activities to run parallel to, and independently of one another.

EXTRA-SENSORY PERCEPTION – Perception through channels other than those of the recognized senses.

HYPERAESTHESIA – Supersensitiveness to any impression.

HYPNAGOGIC IMAGE – Image generated by the state just before sleep.

HYPNOSIS – An artificially induced state of extreme suggestibility.

KINESTHETIC – Pertaining to the sense which yields information of position and movement of the body or of its several members.

MONO-IDEISM – State dominated by a single idea.

NEURON – A single cell, the unit of structure of nervous tissue.

ONEIRIC – Dream-like.

PARANORMAL – Beyond the normal as now conceived.

PARAPSYCHOLOGY – The division of the science of psychology dealing with the paranormal.

PERCIPIENT – The receiver of an extra-sensory impression.

RAPPORT – Close unconstrained relation between two persons.

SUBCONSCIOUS – Term applied to phenomena which are mental in nature, basic to personal consciousness, but not naturally apprehended by personal consciousness.

TELEPATHY – The communication of impressions, of any kind, from one mind to another, independently of the recognized channels of sense.

TELESTHESIA – Extra-sensory perception of an object. A more general term than clairvoyance, which should properly be reserved for visual telesthesia, but is commonly used as a synonym.

TRANCE – General term for sleep-like states, generally abnormal ones.

For other terms see H. C. Warren, *Dictionary of Psychology*, or H. B. English, *A Student's Dictionary of Psychological Terms*.

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EXPERIMENTAL TELEPATHY

W.H. COLLIER

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